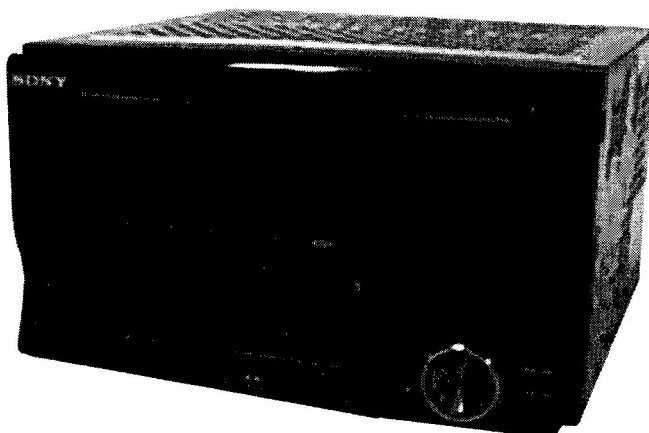


WX-C770

SERVICE MANUAL

E Model



Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol $\square\square$ are trademarks of Dolby Laboratories Licensing Corporation.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Drive Mechanism Type	MG-338T-121
	Optical Pick-up Name	KSS-520A
TC Section	Model Name Using Similar Mechanism	WX-C570
	Tape Transport Mechanism Type	MG-52A-135

SPECIFICATIONS

CD player section

Signal-to-noise ratio	96 dB
Frequency response	10 - 20,000 Hz
Wow and flutter	Below measurable limit

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 - 18,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby NR off
TYPE II, IV	67 dB	58 dB
TYPE I	64 dB	55 dB

Tuner section

FM

Tuning range	FM tuning interval: 50 kHz/200 kHz switchable 87.5 - 108.0 MHz (at 50 kHz step) 87.5 - 107.9 MHz (at 200 kHz step)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 - 15,000 Hz
Capture ratio	4 dB

AM

Tuning range	AM tuning interval: 9 kHz/10 kHz switchable 531 - 1,602 kHz (at 9 kHz step) 530 - 1,710 kHz (at 10 kHz step)
Antenna terminal	External antenna connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	30 μ V

Graphic equalizer section

Center frequency	63 Hz, 160 Hz, 400 Hz, 1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz
Variable range	± 12 dB

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 - 8 ohms
Maximum power output	35 W $\times$ 4 (at 4 ohms)

- Continued on next page -

CHANGER CONTROL AUDIO MASTER



SONY®

General

Outputs	Line outputs (2) Sub output Power antenna relay control lead Power amplifier control lead
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 100 × 173 mm (w/h/d)
Mounting dimensions	Approx. 178 × 100 × 155 mm (w/h/d)
Mass	Approx. 2.2 kg
Supplied accessories	Parts for installation and connections (1 set) Decoy cover (1)

Design and specifications are subject to change without notice.

SERVICE NOTE

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

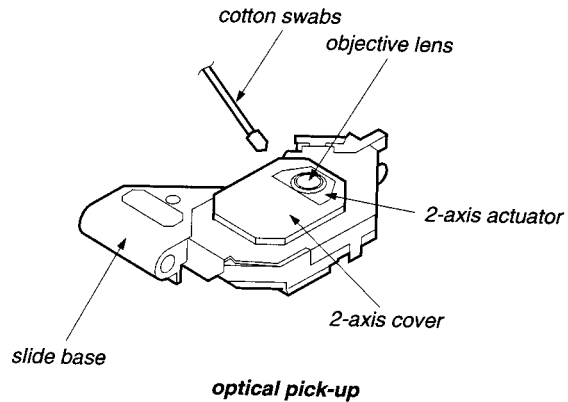
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

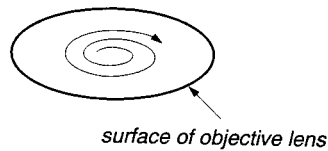
NOTES ON PICK-UP FLEXIBLE BOARD

The pick-up flexible board in this set is secured to the optical pick-up with an adhesive tape. Once the tape is removed, an adhering force becomes weak, and it cannot be reused. Therefore, if the optical pick-up is replaced, replace also the pick-up flexible board with a new one.

NOTES ON CLEANING THE OBJECTIVE LENS



Apply CD lens cleaner B-4 (Part No.:J-2501-000-A) to cotton swabs (narrow type) (Part No.:J-2501-023-A) to be lightly wet. Use a force (about 5 g) to make the objective lens in contact with the bottom lightly, and clean the lens by spirals as following below. Replace the cotton swab and repeat this cleaning two or three times.



Notes:

Do not force to push the objective lens. Otherwise, the plate spring supporting the objective lens will be bent, causing a deteriorated RF waveform.

Never touch anything other than the objective lens. Otherwise, a significant deterioration occurs in the RF waveform.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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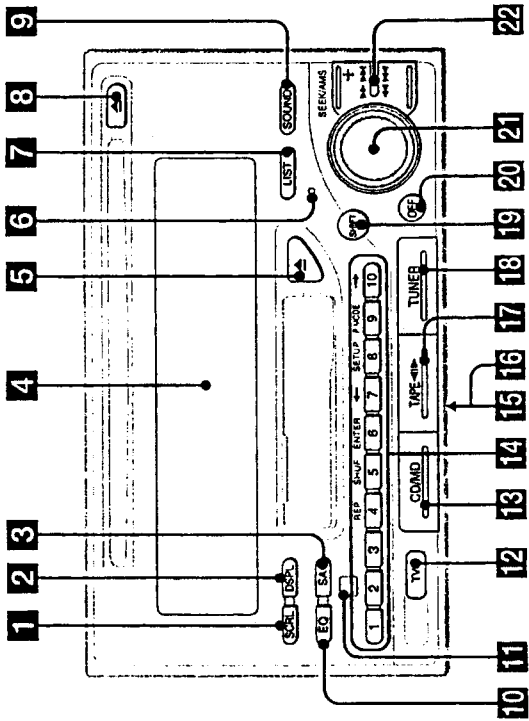
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SECTION 1
GENERAL

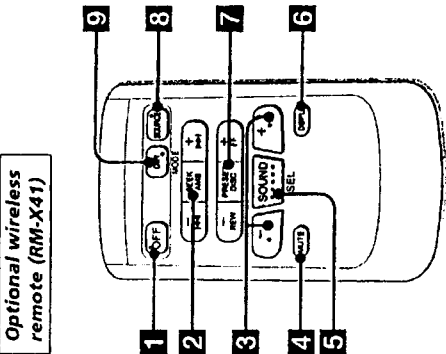
This section extracted from
instruction manual.

Location of controls



Refer to the pages for details.

- 1 SCRL button 7, 19
2 DSPL (display mode change) button 9, 10, 12, 14, 15, 19, 20, 22
3 SA button 18
4 Display window
5 Eject for tape) button 11
6 Reset button 6
7 LIST button
Disc Memo 9, 10, 21, 22
List-up 15, 23, 25, 26
Station memo 14, 15
8 Eject for CD) button 7
9 SOUND button 16, 17, 18
10 EQ (equalizer) button 18
- 11 Receptor for the optional wireless remote
12 TV button 24, 25, 26
13 CD/MD (disc play/CD/MD unit select) button 7, 19, 20, 22, 26
14 During radio/TV reception:
Number buttons 13, 14, 25
During CD/MD playback:
Direct disc selection buttons 20
15 POWER SELECT switch (located on the bottom of the unit)
See "POWER SELECT Switch" in the Installation/Connections manual.
16 Frequency Select switch (located on the bottom of the unit)
See "Frequency Select Switch" in the Installation/Connections manual.



The buttons of the wireless remote work the same functions as those on this unit.

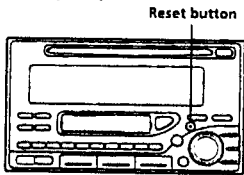
- 1 OFF button
2 SEEK/AMS button
3 MUTE button
4 MUTE button
5 SOUND button
6 DSPL button
7 PRESET/DISC button
You cannot do manual search and manual tuning with the remote.
8 SOURCE button
9 MODE/DIR button
Pressing button changes the operation in the following ways:
Tape: FWD ↔ REV
FM ↔ AM
Tuner: CD1 → CD2 → ...
CD unit: MD1 → MD2 → ...
TV/Video: TV → Video1 → Video2 → ...

When the POWER SELECT switch is set to the 0 position, the unit cannot be operated with the wireless remote unless **CD/MD** on the unit is pressed or a CD is inserted to activate the unit first.

Getting Started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit. Press the reset button with a pointed object, such as a ball-point pen.



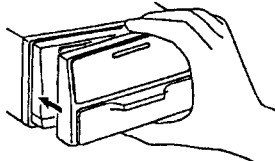
EN

Notes

- Pressing the reset button will erase the clock and some memorized functions.
- When you connect the power supply cord to the unit or reset the unit, wait for about 10 seconds before you insert a disc. If you insert a disc within these 10 seconds, the unit will not be reset, and you will have to press the reset button again.

Using the decoy cover

To deter theft of this unit, use the decoy black ashtray cover when not using your car.



Note

If the unit does not extend 6 mm from the dash panel, you may not be able to use the decoy cover.

6

Setting the clock

The clock uses a 12-hour digital indication.

Example: Set the clock to 10:08

1 Press **(SHIFT)**, then press **(B)** (SET UP).

Clock Set

1 Press **(10)** (→).

Clock 10:00

The hour digit flashes.

2 Set the hour.



Clock 10:00

3 Press **(10)** (→).

Clock 10:00

The minute digits flash.

4 Set the minute.



Clock 10:08

2 Press **(SHIFT)**.

10:08

The clock starts.

3 Press **(SHIFT)**.

After the mode setting is complete, the display goes back to normal playback mode.

Note

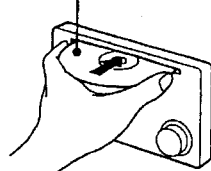
If the POWER SELECT switch on the bottom of the unit is set to the ① position, turn the power on first, then set the clock.

CD Player

Listening to a CD

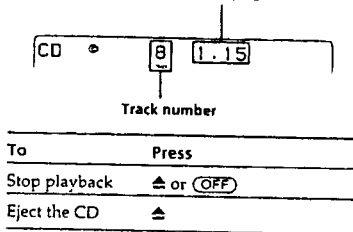
Simply insert the CD. Playback starts automatically.

Labelled side up



If a CD is already inserted, press **(CDMD)** repeatedly until "CD" appears.

Elapsed playing time

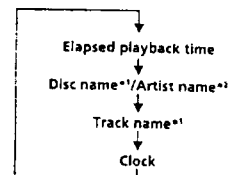


Notes

- If you cannot insert a CD when the POWER SELECT switch is set to ② position, try turning on the power to the radio or cassette first.
- If you leave the disc in the insertion slot for more than 15 seconds after pressing **(CDMD)**, the disc will reinsert automatically to protect the disc.

Changing the displayed item

Each time you press **(DSPL)**, the item changes as follows:



*1 If you inserted a non-CD TEXT disc, "NO D.Name" or "NO T.Name" appears in the display.

*2 If you play a CD TEXT disc, the artist name appears in the display after the disc name. (Only for CD TEXT discs with the artist name.)

Tip

If the name of the CD TEXT disc is too long, you can scroll it across the display window by pressing **(SCRL)** while the disc name or track name is displayed.

Automatically scrolling a disc name

— Auto Scroll

If the disc name/artist name or track name on a CD TEXT disc exceeds 10 characters and the Auto Scroll function is on, automatically scrolls on the display as follows:

- The disc name appears when the disc has changed (if the disc name is selected).
- The track name appears when the track has changed (if the track name is selected).
- The disc or track name appears depending on the setting when you press **(CDMD)** to select a CD TEXT disc.

If you press **(DSPL)** to change the display item, the disc or track name of the CD TEXT disc is scrolled automatically whether you set the function on or off.

1 During playback, press **(SHIFT)**.

2 Press **(B)** (SET UP) repeatedly until "A.Scr" appears.

3 Press **(10)** (→) to select "A.Scr on."

4 Press **(SHIFT)**.

To cancel Auto Scroll, select "A.Scr off" in step 2 above.

Note

For some CD TEXT discs with extremely many characters, the following cases may happen:
— Some of the characters are not displayed.
— Auto Scroll does not work.

EN

Getting Started/CD Player

7

Locating a specific track

— Automatic Music Sensor (AMS)

During playback, press either side of **(SEEK/AMS)** momentarily.



To locate succeeding tracks

To locate preceding tracks

Locating a specific point in a track

— Manual Search

During playback, press and hold either side of **(SEEK/AMS)**. Release the button when you have found the desired point.



To search forward

To search backward

Note

If "LLLL" or "RRR" appears in the display, that means you have reached the beginning or the end of the disc and you cannot go any further.

Playing a CD in various modes

You can play CDs in various modes:

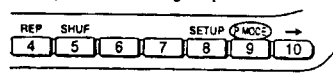
- Intro (Intro Scan) lets you play the first 10 seconds of all the tracks.
- Repeat (Repeat Play) repeats the current track.
- Shuf (Shuffle Play) plays all the tracks in random order.

Searching for the desired track

— Intro scan

1 During playback, press **(SHIFT)**.

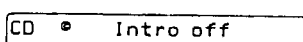
Every time you press **(SHIFT)**, only the items you can select light up.



2 Press **(P MODE)** repeatedly until "Intro" appears.

Each time you press **(P MODE)**, the item changes as follows:

Intro → Bank → DSM set



3 Press **(10)** (→) to select "Intro on."

CD Intro on

Intro Scan starts.

4 Press **(SHIFT)**.

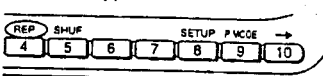
To go back to normal playback mode, select "Intro off" in step 3 above.

Playing tracks repeatedly

— Repeat Play

1 During playback, press **(SHIFT)**.

2 Press **(4)** (REP) repeatedly until "Repeat 1" appears.



Repeat Play starts.

3 Press **(SHIFT)**.

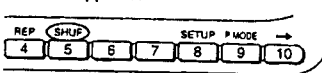
To go back to normal playback mode, select "Repeat off" in step 2 above.

Playing tracks in random order

— Shuffle Play

1 During playback, press **(SHIFT)**.

2 Press **(5)** (SHUF) repeatedly until "Shuf 1" appears.



Shuffle Play starts.

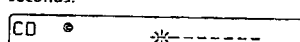
3 Press **(SHIFT)**.

To go back to normal playback mode, select "Shuf off" in step 2 above.

Labeling a CD — Disc Memo

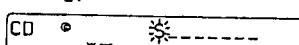
You can label each disc with a personalized name. You can enter up to eight characters for a disc. If you label a CD, you can select the specific tracks for playback (page 10).

1 Play the CD and press **(LIST)** for two seconds.



2 Enter the characters.

1 Rotate the dial clockwise to select the desired character.
(A → B → C → ... Z → 0 → 1 → 2 → ... 9 → + → - → * → / → \ → > → < → . → _)

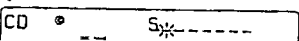


If you rotate the dial counterclockwise, the characters appear in the reverse order.

If you want to put a blank space between characters, select " " (under-bar).

2 Press **(10)** (→) after locating the desired character.

The flashing cursor moves to the next space.



If you press **(←)**, the flashing cursor moves to the left.

3 Repeat steps 1 and 2 to enter the entire name.

3 To return to normal CD playback mode, press **(LIST)** for two seconds.

Tip

To erase/correct a name enter " " (under-bar) for each character.

Displaying the disc memo name or CD TEXT name

When you play back a CD TEXT disc, you can set the priority display item to be the disc memo name or the CD TEXT name.

1 Press **(SHIFT)** during CD TEXT disc playback.

2 Press **(B)** (SET UP) repeatedly until "Disc MEMO" or "TEXT name" appears.

3 Press **(10)** (→) to select "Disc MEMO" or "TEXT name."

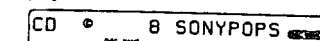
4 Press **(SHIFT)**.

After the mode setting is complete, the display goes back to normal playback mode.

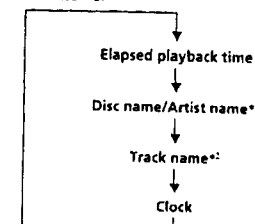
If you want to change to the other setting, you can do so in step 3.

Displaying the disc memo name

Press **(DSPL)** during CD or CD TEXT disc playback.



Each time you press **(DSPL)** during CD or CD TEXT disc playback, the item changes as follows:



*1 When you connect an optional CD changer with the CD TEXT function, the personalized label or the CD TEXT disc name appears. See below to change the display.

— To change the displayed item press **(10)** (→).

— To change the display using display settings ("Displaying the disc memo name or CD TEXT name").

continue to next page →

EN

CD Player

9

The display item will change depending on the setting as follows:

Type of disc	Priority display setting	Actual display
A	Disc MEMO	Disc memo
	TEXT name	CD TEXT information
B	Disc MEMO	Disc memo
	TEXT name	CD TEXT information
C	Disc MEMO	Disc memo
	TEXT name	CD TEXT information
D	Disc MEMO	NO D.Name
	TEXT name	NO D.Name

- A: CD TEXT disc with disc memo
- B: Normal CD with disc memo
- C: CD TEXT disc without disc memo
- D: Normal CD without disc memo

If you connect an optional CD changer with the CD TEXT function, the CD TEXT information will appear in the display when you playback a CD TEXT disc.

Erasing the disc memo

- 1 Play the CD and press **LIST** for two seconds.
- 2 Press **DISP** for two seconds.
- 3 Rotate the dial to select the name you want to erase.
- 4 Press **ENTER** for two seconds. The name is erased. Repeat steps 3 and 4 if you want to erase other names.
- 5 Press **LIST** for two seconds. The unit returns to normal CD playback mode.

Selecting specific tracks for playback — Bank

If you label the disc, you can set the unit to skip tracks and play only the tracks you want.

- 1 Start playing the disc and press **SHIFT**. Then press **P** (P MODE) repeatedly until "Bank" appears.

Bank edit mode.

CD • 1 Bank

Note

If you have not labeled the disc, the bank edit mode does not appear and the program edit mode appears. To go back to normal playback mode, press **SHIFT**.

- 2 Press either side of **SEEK/AMS** to select the track number you want to skip and press **ENTER**.

CD • 3 Bank

The indication changes from "Play" to "Skip." If you want to return to "Play," press **ENTER** again.

- 3 Repeat step 2 to set the "Play" or "Skip" mode on all the tracks.

- 4 Press **P** (P MODE) for two seconds. The unit returns to normal CD playback mode.

- 5 Press **SHIFT**.

Notes

- You can set the "Play" and "Skip" mode on up to 24 tracks.
- You cannot set the "Skip" mode on all the tracks.

Playing the specific tracks only

You can select:

- Bank on to play the tracks with the "Play" setting.
- Bank invers (inverse) to play the tracks with the "Skip" setting.

- 1 During playback, press **SHIFT**, then press **P** (P MODE) repeatedly until "Bank" appears.

- 2 Press **10** (→) to repeatedly until the desired setting appears.

→ Bank on → Bank invers → Bank off

CD • Bank on

Playback starts from the track following the current one.

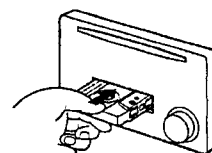
- 3 Press **SHIFT**.

To go back to normal playing mode, select "Bank off" in step 2 above.

Cassette Player

Listening to a tape

Insert a cassette.



Playback will start automatically.

If a cassette is already inserted, press **TAPE** (◀▶) until "FWD" or "REV" appears to start playback.

TAPE FWD

The side facing up is played.

TAPE REV

The side facing down is played.

Tip

To change the tape transport direction, press **TAPE** (◀▶) again during tape playback.

To	Press
Stop playback	OFF
Eject the cassette	▲

Fast-winding the tape

During playback, press either side of **SEEK/AMS** for two seconds.



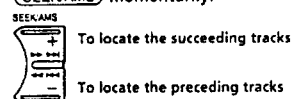
To start playback during fast-forwarding or rewinding, press **TAPE** (◀▶).

Locating the beginning of a track

— Automatic Music Sensor (AMS)

You can skip up to nine tracks at one time.

During playback, press either side of **SEEK/AMS** momentarily.



Note

The AMS function may not work when:
— the blanks between tracks are shorter than four seconds.
— there is noise between tracks.
— there are long sections of low volume or quiet sections.

Changing the displayed items

Each time you press **DISP** during tape playback, the display changes as follows:

→ Tape playback → Clock → Frequency*

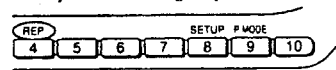
- * While the ATA function is activated.

Playing tracks repeatedly

— Repeat play

You can repeat play the current track.

- 1 During playback press **SHIFT**. Every time you press **SHIFT**, only the items you can select light up.



- 2 Press **4** (REP) repeatedly until "Repeat on" appears. Repeat play starts.

- 3 Press **SHIFT**.

To go back to the normal playback mode, select "Repeat off" in step 2 above.

Playing a tape in various modes

You can play the tape in various modes:

- Intro (Intro Scan) lets you play the first 10 seconds of all the tracks.
- NR (Dolby NR) lets you select the Dolby® NR B system.
- Metal playing CrO₂ or metal tape.
- ATA (Automatic Tuner Activation) turns on the tuner automatically while fast-winding the tape.
- B.Skip (Blank Skip) skips blanks longer than eight seconds.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

- 1 Press **SHIFT**, then press **P** (P MODE) repeatedly until the desired play mode appears.

Each time you press **P** (P MODE), the item changes as follows:
Intro → NR → Metal → ATA → B.Skip

TAPE Intro off

- 2 Press **10** (→) to select the desired play mode setting (for example: on or off).

TAPE Intro on

Playback starts.

- 3 Press **SHIFT**.

To go back to the normal playback mode, select "off" in step 2 above.

Radio

Memorizing stations automatically

— Best Tuning Memory (BTM)

The unit selects the stations with the strongest signals and memorizes them in the order of their frequencies. You can store up to 10 stations on each band (FM and AM).

Caution

When tuning in stations while driving, use Best Tuning Memory to prevent accidents.

- 1 Press **TUNER** repeatedly to select the band.

Each time you press **TUNER**, the band changes as follows:

FM → AM

- 2 Press **SHIFT**, then press **P** (P MODE) repeatedly until "B.T.M" appears.

- 3 Press **10** (→).

The unit stores stations in the order of their frequencies on the number buttons. A beep sound and the setting is stored.

- 4 Press **SHIFT**.

Notes

- The unit does not store stations with weak signals. If only a few stations are received, some number buttons will retain their former setting.
- When a number is indicated in the display, the unit starts storing stations from the one currently displayed.

Memorizing only the desired stations

You can store up to 10 stations on each band in the order of your choice.

- 1 Press **TUNER** repeatedly to select the band (FM or AM).
- 2 Press either side of **SEEK/AMS** to tune in the station you want to store on the number button.
- 3 Keep the desired number button (1 to 10) pressed for two seconds until "MEM" appears. The number button indication appears in the display.

Note

If you try to store another station on the same number button, the previously stored station will be erased.

Receiving the memorized stations

- 1 Press **(TUNER)** repeatedly to select the band (FM or AM).
- 2 Press the number button (**1** to **10**) momentarily where the desired station is stored.

If you cannot tune in a preset station

Press either side of **(SEEK/AMS)** momentarily to search for the station (automatic tuning). Scanning stops when the unit receives a station. Press either side of **(SEEK/AMS)** repeatedly until the desired station is received.

EN

Note
If the automatic tuning stops too frequently, press **(SHIFT)**, then press **(P MODE)** repeatedly until "Local" (local seek mode) is displayed. Then press **(10)** (→) to select "Local on." Press **(SHIFT)**. Only the stations with relatively strong signals will be tuned in.

Tip
If you know the frequency of the station you want to listen to, press and hold either side of **(SEEK/AMS)** for two seconds until the desired frequency appears (manual tuning).

If FM stereo reception is poor — Monaural Mode

- 1 Press **(SHIFT)**, then press **(P MODE)** repeatedly until "Mono" appears.
- 2 Press **(10)** (→) repeatedly until "Mono on" appears. The sound improves, but becomes monaural ("ST" disappears).
- 3 Press **(SHIFT)**.

To go back to normal mode, select "Mono off" in step 2 above.

Changing the displayed items

Each time you press **(DSPL)**, the item changes as follows:

→ Station name* → Frequency → Clock

* If the station name is not stored, "NO Name" appears in the display for one second.

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Storing the station names

— Station Memo

You can assign a name to each radio station and store it in memory. The name of the current station appears in the display. You can store up to eight characters for each station.

Storing the station names

- 1 Tune in a station whose name you want to store.

- 2 Press **(LIST)** for two seconds.

FM L 3 WKISS

- 3 Enter the characters.
 - 1 Rotate the dial clockwise to select the desired characters.
(A → B → C → ... Z → 0 → 1 → 2 → ... 9 → + → - → * → / → \ → - → -)

FM L 3 WKISS

If you rotate the dial counterclockwise, the characters appear in the reverse order.
If you want to put a blank space between characters, select " " (under-bar).

- 2 Press **(10)** (→) after locating the desired character. The flashing cursor moves to the next space.

FM L 3 WKISS

If you press **(7)** (←), the flashing cursor moves to the left.

- 3 Repeat steps 1 and 2 to enter the entire name.

- 4 To return to normal radio reception, press **(LIST)** for two seconds.

Tip
To erase/correct a name, enter " " (under-bar) for each character.

Displaying the station name

Press **(DSPL)** during radio reception.

FM L 3 WKISS

Each time you press **(DSPL)**, the item changes as follows:

→ Station name* → Frequency → Clock

* If the station name is not stored, "NO Name" appears in the display for one second.

Erasing the station name

- 1 Tune in any station and press **(LIST)** for two seconds.
- 2 Press **(DSPL)** for two seconds. "Delete" and the station name appear in the display.
- 3 Rotate the dial to select the name you want to erase.
- 4 Press **(6)** (ENTER) for two seconds. The name is erased. Repeat steps 3 and 4 if you want to erase other names.
- 5 Press **(LIST)** for two seconds. The unit returns to normal radio reception mode.

Locating a station by name — List-up

- 1 Press **(LIST)** momentarily. The name assigned to the current station appears in the display.
FM L 3 WKISS
- 2 Press **(LIST)** repeatedly until you find the desired station.
- 3 Press **(6)** (ENTER) to tune in the desired station.

Note
After the station name or frequency has been displayed for five seconds, the display goes back to normal mode. To turn off the display, press **(DSPL)**.

EN

Radio

15

Other Functions

Adjusting the sound characteristics

You can balance and fader.

- 1 Select the item you want to adjust by pressing **(SOUND)** repeatedly.
Volume (volume) → EQ (equalizer) → Sub.W (subwoofer volume) → Balance (left-right) → Fader (front-rear)
- 2 Adjust the selected item by rotating the dial.
Adjust within three seconds after selecting the item. (After three seconds, the dial functions work as the volume control.)

EN

Attenuating the sound

Press **(MUTE)** on the optional rotary commander or optional wireless remote. "Mute on" flashes momentarily.

To restore the previous volume level, press **(MUTE)** again.

Tip
The unit decreases the volume automatically when a telephone call comes in (Telephone-mute function).

Registering a surround menu onto each disc

— Disc Sound Memory (DSM)

Once you have registered the desired the sound characteristics (equalizer and subwoofer) onto a disc, you can enjoy the same surround menu every time you play that disc. You can register them of a maximum of 50 discs.

- 1 Press **(SHIFT)**, then press **(P MODE)** repeatedly until "DSM set" appears.

CD * DSM set

- 2 Press **(6)** (ENTER). After the DSM setting is complete, the display goes back to normal playback mode.

- 3 Press **(SHIFT)**.

Changing the stored surround effect

Play the disc whose surround mode you wish to change, and follow the procedure in "Registering a surround menu onto each disc."

Erasing the stored surround effect

Press **(6)** (ENTER) for two seconds in step 2 of "Registering a surround menu onto each disc."

CD * +Delete+

Adjusting the volume of the subwoofer(s)

- 1 Select a source (tuner, tape, CD or MD).
- 2 Press **(SOUND)** repeatedly until "Sub.W" appears.
- 3 Rotate the dial to adjust the volume. After three seconds, the display goes back to the normal playback mode.

Tip
When you rotate the dial to turn the volume all the way down, "Sub.W off" appears and the subwoofer is disabled.

Listening to each program source in its registered surround mode

— Source Sound Memory (SSM)

You can listen to the same source always in the same equalizer curve and subwoofer level even after changing the program source or turning the unit on and off again.

Note
If an optional TV tuner is connected, "LSM" (Last Sound Memory) appears on the TV display.

Creating and storing equalizer curves

You can create and store up to three equalizer curves (User 1 to User 3).

- 1 Select a source (tuner, tape, CD or MD etc.).

- 2 Press **(SOUND)** for two seconds.

CD * 63Hz

- 3 Enter the setting.

- 1 Press **(10)** (→) to select the desired frequencies. If you press **(7)** (←), the frequencies appear in the reverse order.

CD * 1 kHz

- 2 Rotate the dial to adjust the equalizer curve.

- 3 Repeat steps 1 and 2 to adjust analyzer equalizer curve.

- 4 Press **(6)** (ENTER).

CD * EQ User 1

- 5 Rotate the dial to store the equalizer curve.

→ User 1 → User 2 → User 3

To cancel, press **(SOUND)** for two seconds.

- 6 Press **(6)** (ENTER).

CD * +Enter+

- 7 Press **(SOUND)** for two seconds.

EN

Other Functions

17

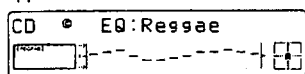
16

Selecting the equalizer curve

You can select from nine equalizer curves.

- 1 Select a source (tuner, tape, CD or MD etc.).

- 2 Press **(SOUND)** repeatedly until "EQ" appears.



- 3 Rotate the dial to the selected stored equalizer curve.

Reggae → Jazz → HipHop → Dance → Ballad
→ Classic → User 1 → User 2 → User 3 →
Reggae

After three seconds, the display goes back to the normal playback mode.

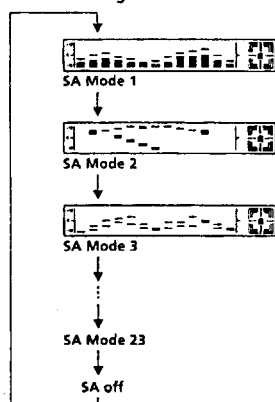
Changing the normal playback

During playback press **(EQ)**.
To change the equalizer curve, press **(EQ)** again.

Selecting the spectrum analyzer

The sound signal level is displayed on a 13 band spectrum analyzer. You can select from 23 display patterns or you can choose no display (SA off).

During playback, press **(SA)** to select a desired setting.



Adjusting the spectrum analyzer level

You can select from three kinds of spectrum analyzer levels (High, Middle, Low).

During playback, press **(SA)** for two seconds.
Each time you press **(SA)** for two seconds, the displayed item changes as follows:

→ Sens Middle → Sens High → Sens Low

Changing the sound and display settings

You can set:

- Clock (page 6).
- Amber/Green to change the illumination color to amber or green.
- Dimmer to change the brightness of the display.
- Select "Auto" to dim the display only when you turn the lights on.
- Select "on" to dim the display.
- Beep to turn on or off the beeps.
- RM (Rotary Remote) to change the operative direction of the controls of the rotary remote.
- Select "norm" to use the rotary remote in the factory-set position.
- Select "rev" when you mount the rotary remote on the right side of the steering column.
- Loud (Loudness) to enjoy bass and treble even at low volume. The bass and treble will be reinforced.
- A.Scl (Auto Scroll) (page 7, 20).
- Disc MEMO/TEXT name (Disc memo/CD TEXT name) to set the priority display item when you connect an optional CD changer with the CD TEXT and disc memo function (page 9, 22).

- 1 Press **(SHIFT)**.

- 2 Press **(B)** (SET UP) repeatedly until the desired item appears.

Each time you press **(B)** (SET UP), the item changes as follows:

Clock → Amber/Green → Dimmer → Beep → RM → Loud* → A.Scl* → Disc MEMO/TEXT name*

* When you have not tune the station or there is no CD/MD being played, these items will not appear.

Note
The displayed item will differ depending on the source.

- 3 Press **(10)** (→) to select the desired setting (for example: on or off).

- 4 Press **(SHIFT)**.
After the mode setting is complete, the display goes back to normal playback mode.

With Optional Equipment CD/MD unit

This unit can control a maximum of seven external CD/MD units in this configuration:
— CD unit - maximum of five
— MD unit - maximum of five
If you connect an optional CD changer with the CD TEXT function, the CD TEXT information will appear in the display when you play back a CD TEXT disc.

Playing a CD or MD

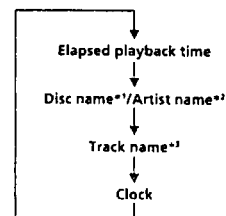
Press **(CD/MD)** until the desired changer appears.

MD/CD playback starts.

When a MD/CD unit is connected, all the tracks play from the beginning.

Changing the displayed item

Each time you press **(CD/MD)** during CD, CD TEXT disc or MD playback, the item changes as follows:



* If you have not labeled the disc or there is no disc name prerecorded on the MD, "NO D.Name" appears in the display.

* If you play a CD TEXT disc, the artist name appears in the display after the disc name. (Only for CD TEXT discs with the artist name)

* If the track name of a CD TEXT disc or MD is not prerecorded, "NO T.Name" appears in the display.

You can label a personalized name for CDs and CD TEXT discs with the disc memo function, refer to "Labeling a CD" (page 21).

Tip
If the name of the MD or CD TEXT disc is too long, you can scroll it across the display window by pressing **(SCRL)** while the disc name or track name is displayed.

Automatically scrolling a disc name — Auto Scroll

If the disc name/artist name or track name on a CD TEXT disc or MD exceeds 10 characters and the Auto Scroll function is on, automatically scrolls on the display as follows:

- The disc name appears when the disc has changed (if the disc name is selected).
- The track name appears when the track has changed (if the track name is selected).
- The disc or track name appears depending on the setting when you press **(CD/MD)** to select an MD or CD TEXT disc.

If you press **(DSPL)** to change the display item, the disc or track name of the MD or CD TEXT disc is scrolled automatically whether you set the function on or off.

- 1 During playback, press **(SHIFT)**.
- 2 Press **(B)** (SET UP) repeatedly until "A.Scl" appears.
- 3 Press **(10)** (→) to select "A.Scl on."
- 4 Press **(SHIFT)**.

To cancel Auto Scroll, select "A.Scl off" in step 2 above.

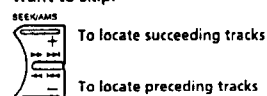
Note
For some CD TEXT discs with extremely many characters, the following cases may happen:
— Some of the characters are not displayed.
— Auto Scroll does not work.

Displaying the recording date of the current MD

Press **(DSPL)** for two seconds during MD playback.
The recording date of the track is displayed for about three seconds.

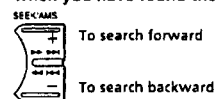
Locating a specific track — Automatic Music Sensor (AMS)

During playback, press either side of **(SEEK/AMS)** once for each track you want to skip.



Locating a specific point in a track — Manual Search

During playback, press and hold either side of **(SEEK/AMS)**. Release the button when you have found the desired point.



Locating a disc by disc number — Direct Disc Selection

Press the number button that corresponds with the desired disc number.
The desired disc in the current changer begins playback.

Scanning the tracks — Intro Scan

You can play the first 10 seconds of all the tracks on the current disc.

- 1 During playback, press **(SHIFT)**, then press **(9)** (P MODE) repeatedly until "Intro" appears.
- 2 Press **(10)** (→) to select "Intro on." Intro Scan starts.
- 3 Press **(SHIFT)**.

To go back to normal playback mode, select "Intro off" in step 2 above.

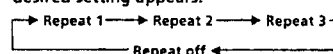
Playing tracks repeatedly — Repeat Play

You can select:

- Repeat 1 to repeat a track.
- Repeat 2 to repeat a disc.
- Repeat 3 to repeat all the discs in the current unit.

- 1 During playback, press **(SHIFT)**.

- 2 Press **(4)** (REP) repeatedly until the desired setting appears.



Repeat Play starts.

- 3 Press **(SHIFT)**.

To go back to normal playback mode, select "Repeat off" in step 2 above.

Note
When you play back a CD on this unit, Repeat 3 has the same function as Repeat 2.

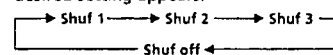
Playing tracks in random order — Shuffle Play

You can select:

- Shuf 1 to play the tracks on the current disc in random order.
- Shuf 2 to play the tracks in the current changer in random order.
- Shuf 3 to play all the tracks in random order.

- 1 During playback, press **(SHIFT)**.

- 2 Press **(5)** (SHUF) repeatedly until the desired setting appears.



Shuffle Play starts.

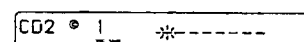
- 3 Press **(SHIFT)**.

To go back to normal playback mode, select "Shuf off" in step 2 above.

Labeling a CD — Disc Memo (CD changer with the custom file function)

You can label each disc with a personalized name. You can enter up to eight characters for a disc. If you label a CD, you can locate the disc by name (page 23) and select the specific tracks for playback (page 23).

- 1 Play the CD and press **(LIST)** for two seconds.



- 2 Enter the characters.

- 1 Rotate the dial clockwise to select the desired characters.
(A → B → C → ... Z → 0 → 1 → 2 → ... 9 → + → - → * → / → \ → > → < → . → _)



If you rotate the dial counterclockwise, the characters appear in the reverse order.
If you want to put a blank space between characters, select "_" (under-bar).

- 2 Press **(10)** (→) after locating the desired character.
The flashing cursor moves to the next space.



If you press **(7)** (←), the flashing cursor moves to the left.

- 3 Repeat steps 1 and 2 to enter the entire name.

- 3 To return to normal CD playback mode, press **(LIST)** for two seconds.

Tip
To erase/correct a name enter "_" (under-bar) for each character.

Displaying the disc memo name or CD TEXT name

When you play back a CD TEXT disc, you can set the priority display item to be the disc memo name or the CD TEXT name.

- 1 Press **(SHIFT)** during CD TEXT disc playback.
- 2 Press **(B)** (SET UP) repeatedly until "Disc MEMO" or "TEXT name" appears.
- 3 Press **(10) (→)** to select "Disc MEMO" or "TEXT name."
- 4 Press **(SHIFT)**. After the mode setting is complete, the display goes back to normal playback mode.

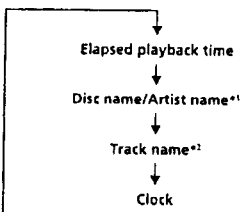
If you want to change to the other setting, you can do so in step 3.

Displaying the disc memo name

Press **(DSPL)** during CD or CD TEXT disc playback.

CD2 * 1 8 SONYPOPS

Each time you press **(DSPL)** during CD or CD TEXT disc playback, the item changes as follows:



- * When you connect an optional CD changer with the CD TEXT function, the personalized label or the CD TEXT disc name appears. See below to change the display.
- To change the displayed item press **(10) (→)**.
- To change the display using display settings ("Displaying the disc memo name or CD TEXT name").

The display item will change depending on the setting as follows:

Type of disc	Priority display setting	Actual display
A	Disc MEMO	Disc memo
	TEXT name	CD TEXT information
B	Disc MEMO	Disc memo
	TEXT name	CD TEXT information
C	Disc MEMO	Disc memo
	TEXT name	CD TEXT information
D	Disc MEMO	NO D.Name
	TEXT name	NO D.Name

- A: CD TEXT disc with disc memo
- B: Normal CD with disc memo
- C: CD TEXT disc without disc memo
- D: Normal CD without disc memo

** If you connect an optional CD changer with the CD TEXT function, the CD TEXT information will appear in the display when you playback a CD TEXT disc.

Erasing the disc memo

- 1 Press **(CD/MD)** repeatedly to select the CD changer.
- 2 Press **(LIST)** for two seconds.
- 3 Press **(DSPL)** for two seconds.
- 4 Rotate the dial to select the name you want to erase.
- 5 Press **(B)** (ENTER) for two seconds. The name is erased. Repeat steps 4 and 5 if you want to erase other names.
- 6 Press **(LIST)** for two seconds. The unit returns to normal CD playback mode.

Locating a disc by name

— List-up (CD changer with the custom file function or MD changer)

You can use this function for discs that have been assigned a custom name. For more information on disc names, refer to "Labeling a CD" (page 21).

- 1 Press **(LIST)** momentarily. The name assigned to the current disc appears in the display.

CD2 * 1 SCHUBERT

If you add disc memo labels to a CD TEXT disc, the display setting you make will determine which information is displayed. If the disc has only one set of information (either CD TEXT or disc memo labels), that information will be displayed regardless of the display setting you make.

- 2 Press **(LIST)** repeatedly until you find the desired disc.

- 3 Press **(B)** (ENTER) to play back the disc.

Notes

- After a disc name has been displayed for five seconds, the display goes back to normal playback mode. To turn off the display, press **(DSPL)**.
- The track names are not displayed during MD playback.
- If there are no discs in the magazine, "NO Disc" appears in the display.
- If a disc has not been assigned a custom file, "*****" appears in the display.
- If the disc information has not been read by the unit, "?" appears in the display. To load the disc, first press the number button, then choose the disc that has not been loaded.
- The information appears only in upper case. There are also some letters which cannot be displayed (during MD playback).

Selecting specific tracks for playback — Bank

(CD changer with the custom file function)

If you label the disc, you can set the unit to skip tracks and play only the tracks you want.

- 1 Start playing the disc and press **(SHIFT)**. Then press **(B)** (P MODE) for two seconds.

Bank edit mode.

CD2 * 3 1 Bank skip

Note

If you have not labeled the disc, the bank edit mode does not appear and the program edit mode appears. To go back to normal playback mode, press **(SHIFT)**.

- 2 Press either side of **(SEEK/AMS)** to select the track number you want to skip and press **(B)** (ENTER).

CD2 * 3 3 Bank skip

The indication changes from "Play" to "Skip." If you want to return to "Play," press **(B)** (ENTER) again.

- 3 Repeat step 2 to set the "Play" or "Skip" mode on all the tracks.

- 4 Press **(B)** (P MODE) for two seconds. The unit returns to normal CD playback mode.

- 5 Press **(SHIFT)**.

Notes

- You can set the "Play" and "Skip" mode on up to 24 tracks.
- You cannot set the "Skip" mode on all the tracks.

Playing the specific tracks only

You can select:

- Bank on to play the tracks with the "Play" setting.
- Bank inverse (Inverse) to play the tracks with the "Skip" setting.

- 1 During playback, press **(SHIFT)**, then press **(B)** (P MODE) repeatedly until "Bank" appears.

- 2 Press **(10) (→)** to repeatedly until the desired setting appears.

→ Bank on → Bank inverse → Bank off

CD2 * Bank on

Playback starts from the track following the current one.

- 3 Press **(SHIFT)**.

To go back to normal playing mode, select "Bank off" in step 2 above.

TV/Video

With the optional TV tuner and TV monitor connected

Watching the TV

- 1 Press **(TV)** repeatedly until "TV" appears.

- 2 Press either side of **(SEEK/AMS)** to select the desired TV band.

Watching a video

Press **(TV)** repeatedly to select "Video 1." Play back the video.

Note

"Video 2" appears if the VIDEO 2 terminal of the TV monitor is selected.

Memorizing TV channels automatically

The unit selects the TV channels with the strongest signals and memorizes them in the order of their frequency.

Caution

When tuning in a station while driving, use Best Tuning Memory to prevent accidents.

- 1 Press **(TV)** repeatedly until "TV" appears.

- 2 Press **(SHIFT)**, then press **(B)** (P MODE) repeatedly until "Auto memory" appears.

- 3 Press **(10) (→)**. The unit stores TV channels in the order of their frequencies on the number buttons. A beep sound and the setting is stored.

- 4 Press **(SHIFT)**.

Notes

- The unit does not store TV channels with weak signals. If only a few TV channels are received, some number buttons will remain empty.
- When a preset number is indicated in the display, the unit starts storing TV channels from the one currently displayed.

Memorizing only the desired TV channels

You can store up to 10 channels on the number buttons in the order of your choice.

- 1 Press **(TV)** repeatedly until "TV" appears.

- 2 Press either side of **(SEEK/AMS)** to tune in the TV program you want to store on the number button.

- 3 Keep the desired number button (1 to 10) pressed for two seconds until you hear a beep tone. The number button indication appears in the display.

Note

If you try to store another program on the same number button, the previously stored program will be erased.

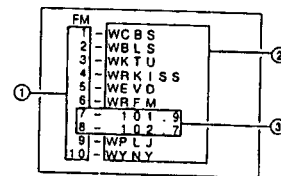
Storing the TV channel names

Follow the steps in "Storing the station names" (page 14).

Displaying the TV or radio station names

Press **(LIST)** momentarily during TV or radio reception.

Example: When receiving the FM band



- ① Preset number
- ② Stored station names
- ③ Frequencies*

* If the name of a station is not stored, the frequency of that station will be displayed instead.

Notes

- It may take some time before all indications appear in the display.
- The TV monitor does not appear during list display.
- The contents of the preset memory cannot be listed when the unit is in the simultaneous play mode (page 26).

Turning off the display

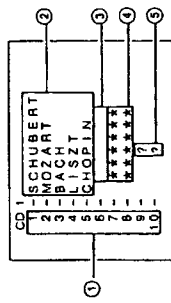
During radio reception, press **(LIST)** again.

During TV reception, the list display on the TV monitor will automatically turn off after a few seconds.

Displaying the information stored on discs

Press **[LIST]** momentarily during CD/MD playback.

Example: When CD changer 1 is selected.



- ① Disc numbers
- ② Titles stored as custom files
- ③ No disc is loaded*1
- ④ No stored titles*2
- ⑤ TOC information has not been identified yet*3

*1 A blank space is displayed next to a disc numbers representing empty slots in the disc magazine.
*2 If a title is not registered in the custom file, "*****" is displayed.
*3 If the disc information has not been read yet, "----" is displayed.

Notes

- It may take some time until all indications appear in the display.
- The TV program does not appear during list display.
- The contents of the preset memory cannot be listed when the unit is in the simultaneous play mode.

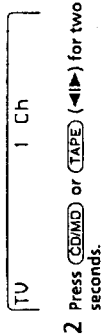
Turning off the display

Press **[LIST]** again.

Watching the TV or video while listening to a CD or MD — Simultaneous Play

The simultaneous play function does not work while you are listening to the radio.

- 1 Press **[TV]** repeatedly to select a TV or AUX.



Simultaneous Play starts.

Returning to normal mode

To cancel the CD, MD or tape, press **[TV]** repeatedly until TV or AUX appears.

To cancel the TV or video, press **[CD/MD]** or **[TAPE]** (◀▶) for two seconds

Note
If you press the **EJECT** button on a CD/MD changer while the unit is in simultaneous play mode, Simultaneous Play is canceled.

Connections

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the yellow and red power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- Run all ground wires to a common ground point.
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual component's fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

If your car has no accessory position on the ignition key switch — POWER SELECT switch

The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear if your car has no accessory position on the ignition key switch. To avoid this battery wear, set the POWER SELECT switch located on the bottom of the unit to the ② position, then press the reset button. The illumination is reset to stay off while the unit is not being played.

Note
The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the ② position.

Frequency select switch

The AM (FM) tuning interval is factory-set to the 9 K (50 K) position. If the frequency allocation system of your country is based on 10 kHz (200 kHz) interval, set the switch on the bottom of the unit to the 10 K (200 K) position before making connections.

Reset button

When the installation and connections are over, be sure to press the reset button with a ballpoint pen etc.

Conexiones

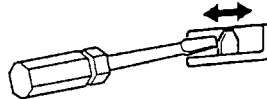
Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Antes de realizar las conexiones, desconecte el terminal de puesta a masa de la batería del automóvil a fin de evitar cortocircuitos.
- Conecte los cables de entrada de alimentación amarillo y rojo solamente después de haber conectado los demás.
- Cerciórese de conectar el cable de entrada de alimentación rojo a un terminal de 12 V positivo que se energice al poner la llave de encendido en la posición para accesorios.
- Conecte todos los conductores de puesta a masa a un punto común.
- Conecte el cable amarillo a un circuito libre del automóvil que tenga una capacidad superior a la del fusible de la unidad. Si conecta esta unidad en serie con otros componentes estéreo, el circuito del automóvil al que se encuentran conectados debe tener una capacidad superior a la de la suma de las capacidades de los fusibles de cada componente. Si ningún circuito del automóvil tiene una capacidad tan alta como la del fusible de la unidad, conecte ésta directamente a la batería. Si el automóvil no dispone de ningún circuito para conectar esta unidad, conéctela a un circuito del automóvil con capacidad superior a la del fusible de la unidad, de forma que si se funde el fusible de ésta, no se interrumpa ningún otro circuito.

Si el automóvil no dispone de posición para accesorios en la llave de encendido — Selector POWER SELECT

La iluminación del panel frontal ha sido ajustada en fábrica para que esté activada aunque la unidad no se encuentre en reproducción. Sin embargo, este ajuste puede provocar cierta descarga de la batería del automóvil si éste no dispone de posición para accesorios en la llave de encendido. Para evitar esto, ponga el selector POWER SELECT, situado en la base de la unidad, en la posición ② y, después, presione el botón de reposición. La iluminación estará desactivada cuando la unidad no se encuentre en reproducción.

Nota
La alarma de precaución del panel frontal no se activará cuando el selector POWER SELECT se encuentre en la posición ②.

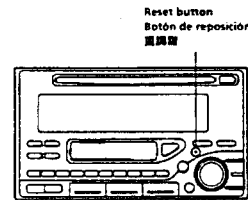


Selector de frecuencia

El intervalo de sintonía de AM (FM) ha sido ajustado en fábrica a la posición 9 K (50 K). Si el sistema de asignación de frecuencias de su país se basa en el intervalo de 10 kHz (200 kHz), ponga este selector, situado en la base de la unidad, en la posición 10 K (200 K) antes de realizar las conexiones.

Botón de reposición

Cuando finalice la instalación y las conexiones, cerciórese de presionar el botón de reposición con un bolígrafo, etc.



線路連接

注意

- 本機只能使用負極接地 12 V 直流電源。
- 連接前，先從去汽車電池的接地端子，以免發生短路。
- 紅色和黃色電源輸入導線必須在所有其他導線連接完畢以後才連接。
- 紅色電源導線須連接至 +12 V 電源端子（該電源端子在點火開關處於輔助位置時才通電）。
- 將所有地線都連接到同一地點。
- 將黃色導線連接到大於機器保險絲額定容量的來佔用的汽車電路上。若把本機和其他立體聲組件相互串聯，所連接的汽車電路容量必須大於各組件保險絲額定容量的總和。若沒有與本機保險絲額定容量一樣大的汽車電路可資利用，可把本機直接連接到電池上。
- 若無適當的汽車電路可用於連接本機，請把本機連接到大於本機保險絲容量的汽車電路上。這樣，若本機的保險絲燒斷了，也不致於切斷其他電路。

若您的汽車在點火鑰匙上沒有輔助位置 — POWER SELECT 開關

原版的說明書是出廠前設置的，即使本機不收音時也持續。然而，若您的汽車在點火鑰匙開關上沒有輔助位置，這樣設置的說明書會造成些汽車電池衰弱。為避免這種情況下的電池衰弱，請把本機底部的 POWER SELECT 開關設定在 ② 位置，然後按壓原版的重置鍵。這樣，當本機不收音時，此說明書從被重新設定在關閉狀態。

註
POWER SELECT 開關設定在 ② 位置，前版的警告功能便失效。

頻率選擇開關

AM(FM) 調頻電路在出廠前被設定在 9 K (50 K) 位置。若貴國的頻分分配系統是以 10 KHz (200 KHz) 範圍為基礎的，連接前，請將本機底部的開關設定在 10 K (200 K) 位置上。

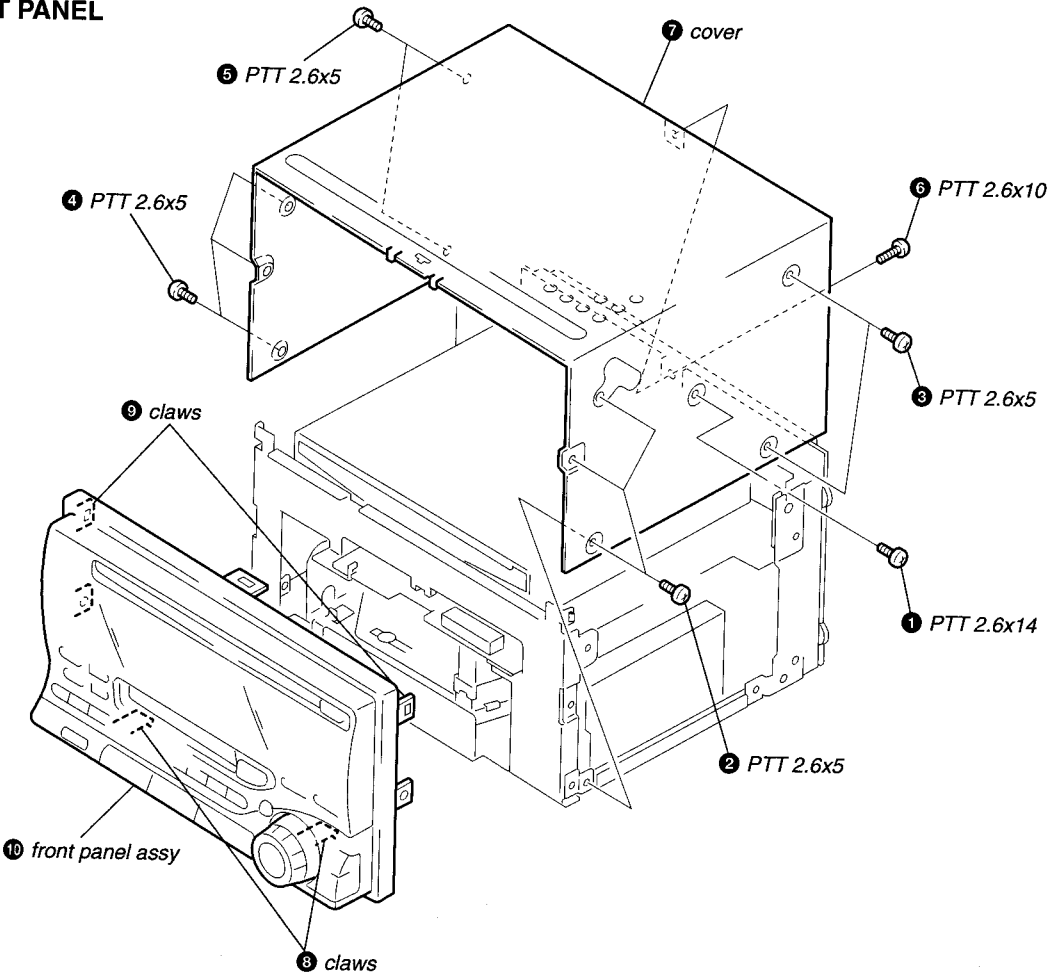
復位鍵

安裝和線路連接完畢後，請用原子筆等物壓復位位置。

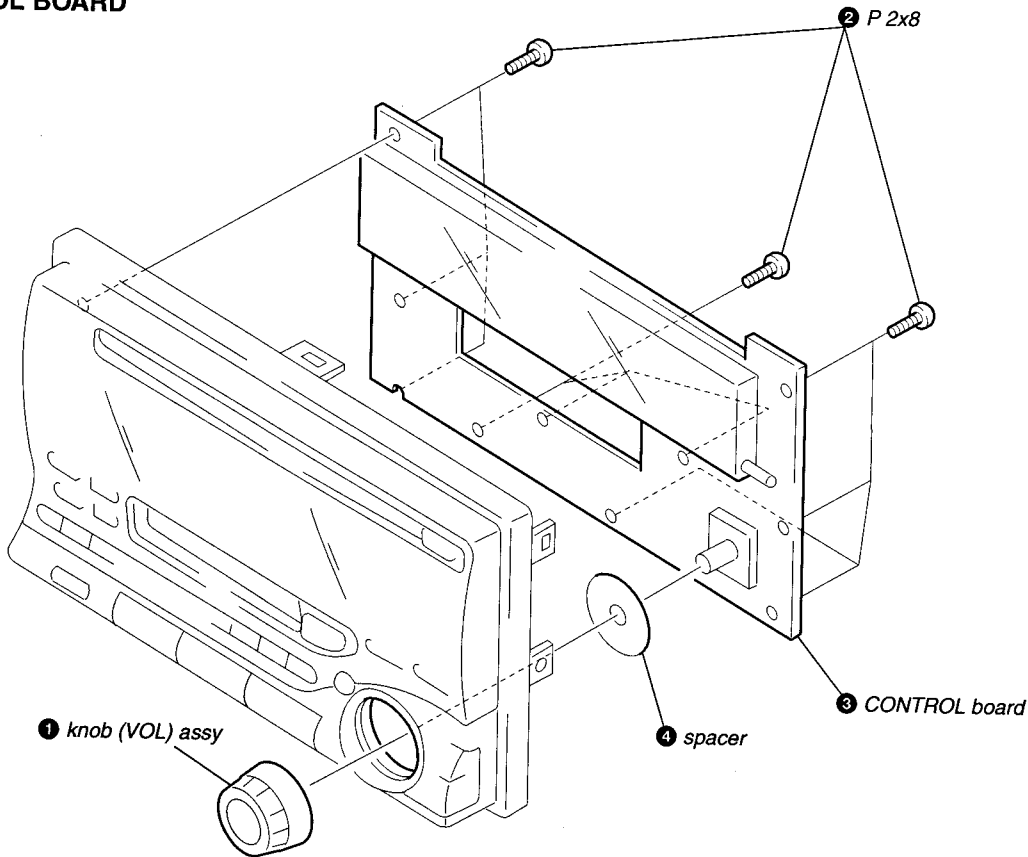
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

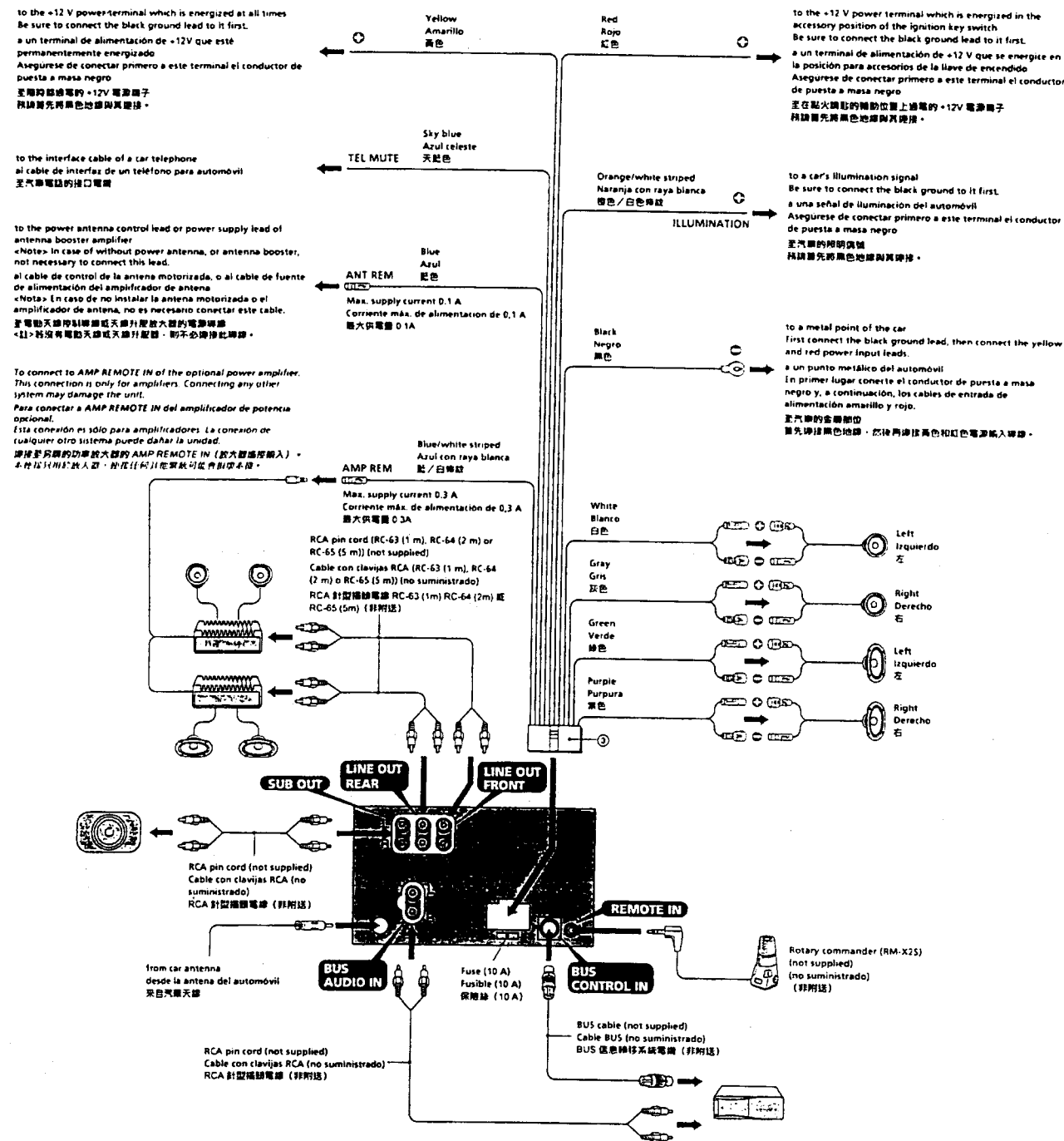
2-1. FRONT PANEL



2-2. CONTROL BOARD



Connection example
Ejemplo de conexiones
線路連接圖例



Notes on the control leads

- The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation) function.
- A power antenna without relay box cannot be used with this unit.

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection

- Before connecting the speakers, turn the unit off.
- Use speakers with an impedance of 4 to 8 ohms, and with adequate power-handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.

Notes sobre conductores de control

- El conductor de control de antena motorizada (azul) suministra +12 V CC al activar el sintonizador o la función ATA (Activación automática del sintonizador).
- Con esta unidad no podrá emplearse una antena motorizada desprovista de caja de relé.

Conexión para protección de la memoria

Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria siempre recibirá alimentación, aunque ponga la llave de encendido en la posición OFF.

Notes sobre la conexión de los altavoces

- Antes de conectar los altavoces, desconecte la alimentación de la unidad.
- Utilice altavoces con una impedancia de 4 a 8 ohmios, y con la potencia admisible adecuada, ya que de lo contrario podría dañarlos.
- No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz derecho a los del izquierdo.
- No intente conectar los altavoces en paralelo.
- No conecte altavoces activos (con amplificadores incorporados) a los terminales de altavoces de la unidad. Si lo hiciera, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.

關於控制導線

- 駕駛器用藍色控制線(藍色)供應+12V DC電壓，當您打開收音機或啟動自動調頻(ATC)功能時，向車內揚聲器系統供電。
- 本機不能使用不含繼電器盒的電動天線。

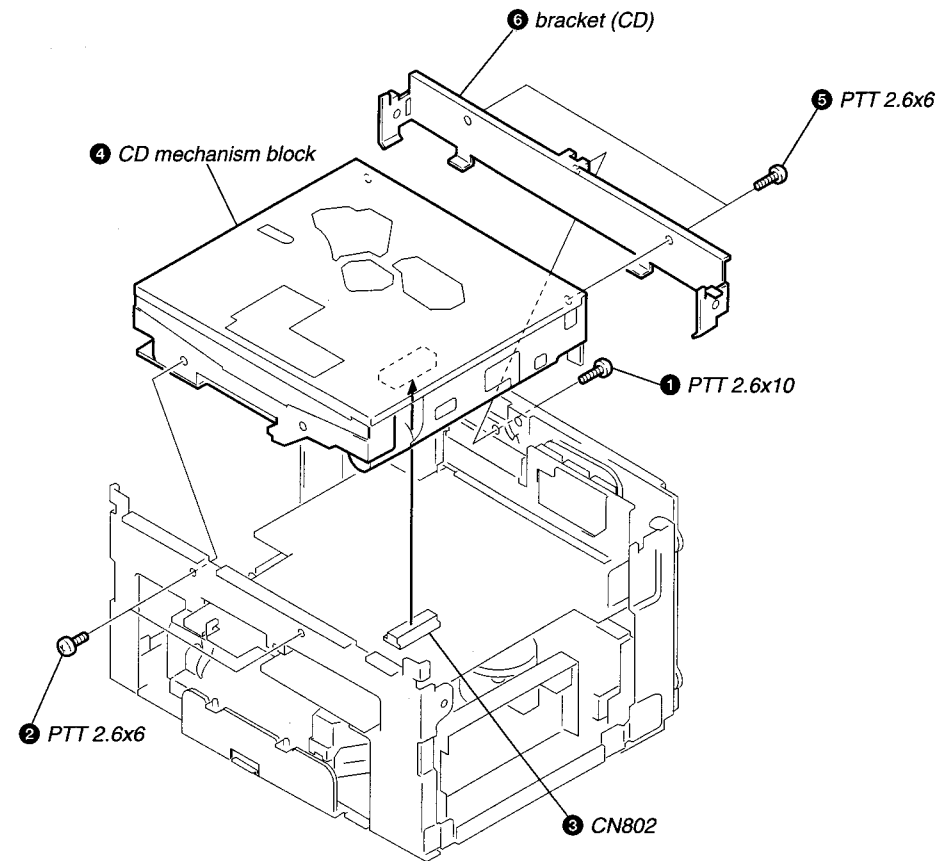
保持記憶的連線方法

當黃色電源輸入線連接時，即使將點火開關轉至OFF位置，記憶電路仍會持續供電，確保收音機記憶功能正常運作。

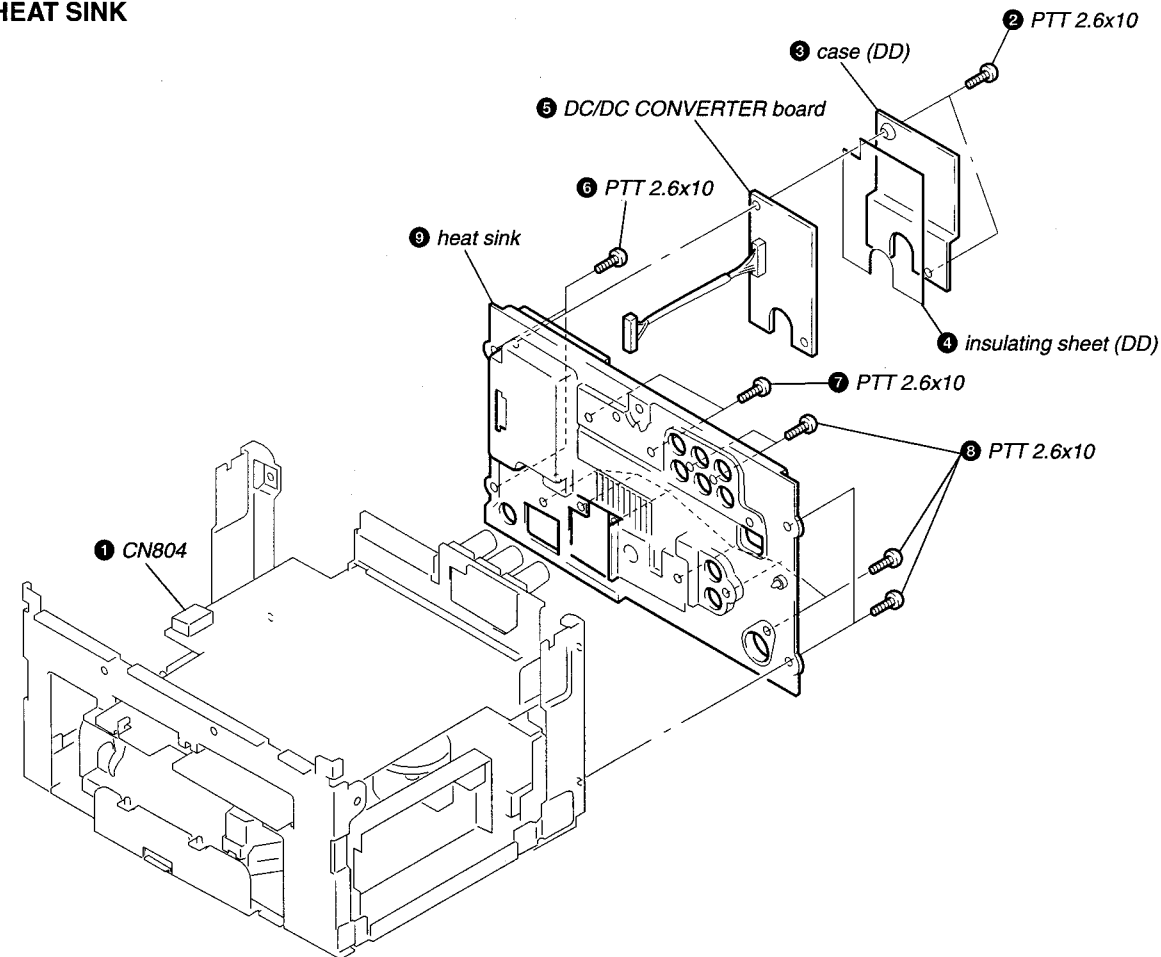
連接揚聲器的注意事項

- 連接揚聲器之前，請先切斷本機電源。
- 請使用阻抗為4至8歐姆，且具有足夠功率容限的揚聲器。否則可能會損壞揚聲器。
- 請勿將揚聲器端子連接到汽車底盤，也不應將右揚聲器端子與左揚聲器端子連接。
- 請勿嘗試將揚聲器並聯連接。
- 請勿連接任何主動揚聲器(內置放大器)至本機的揚聲器端子。否則可能會損壞揚聲器。因此，請確保連接被動揚聲器至這些端子。

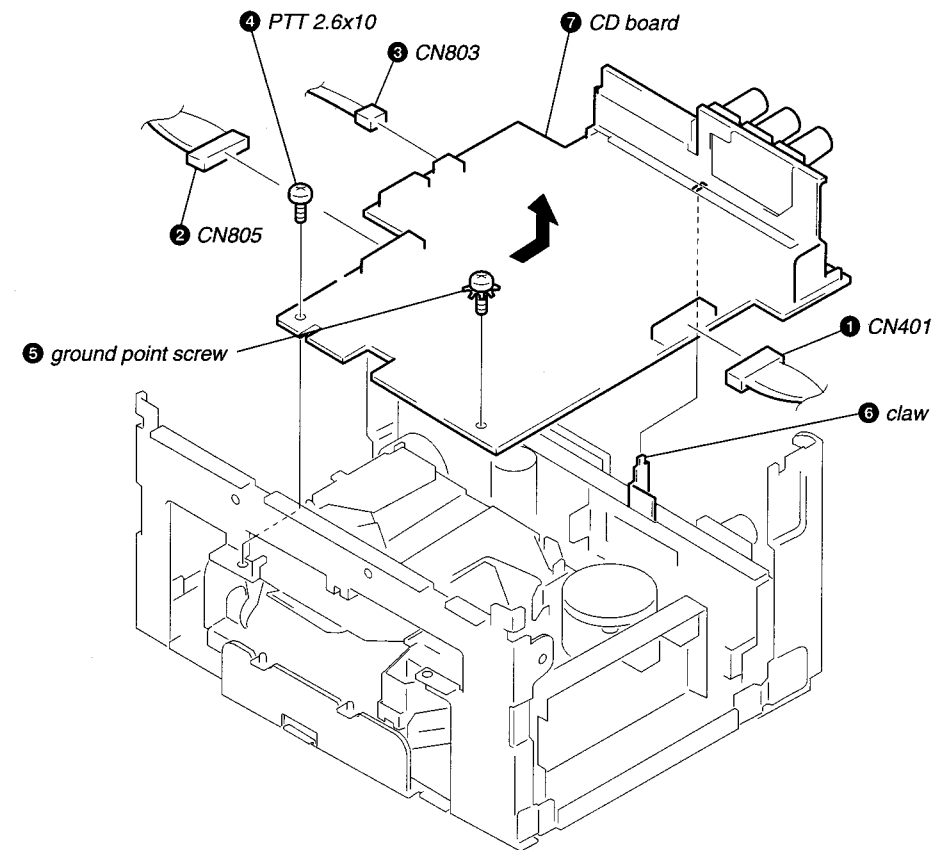
2-3. CD MECHANISM BLOCK



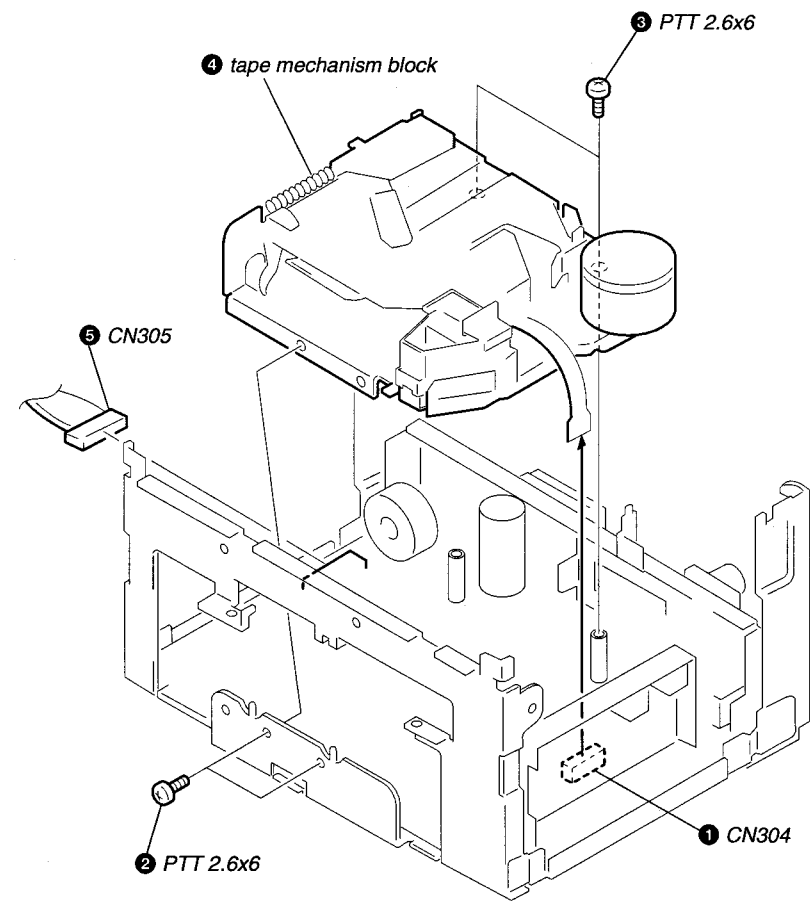
2-4. HEAT SINK



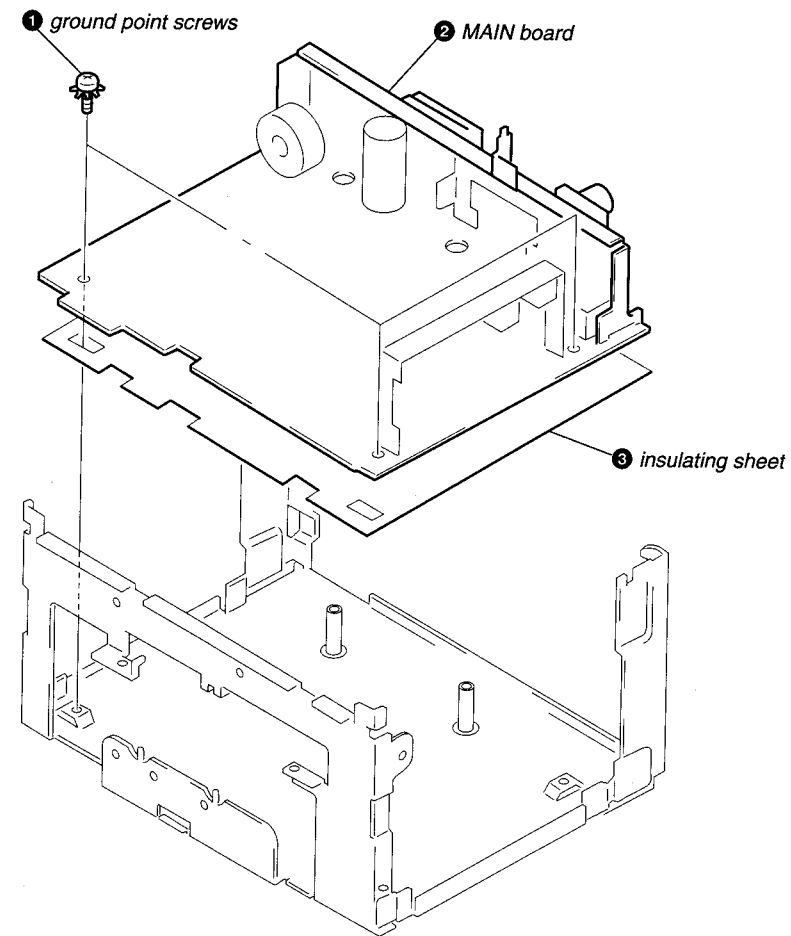
2-5. CD BOARD



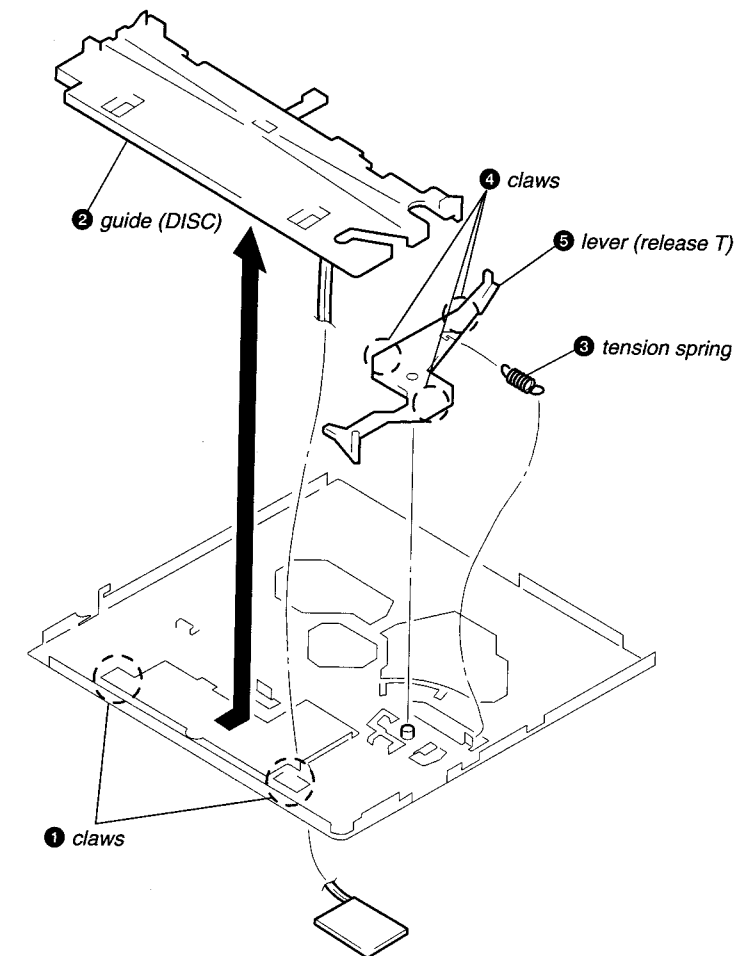
2-6. TAPE MECHANISM BLOCK



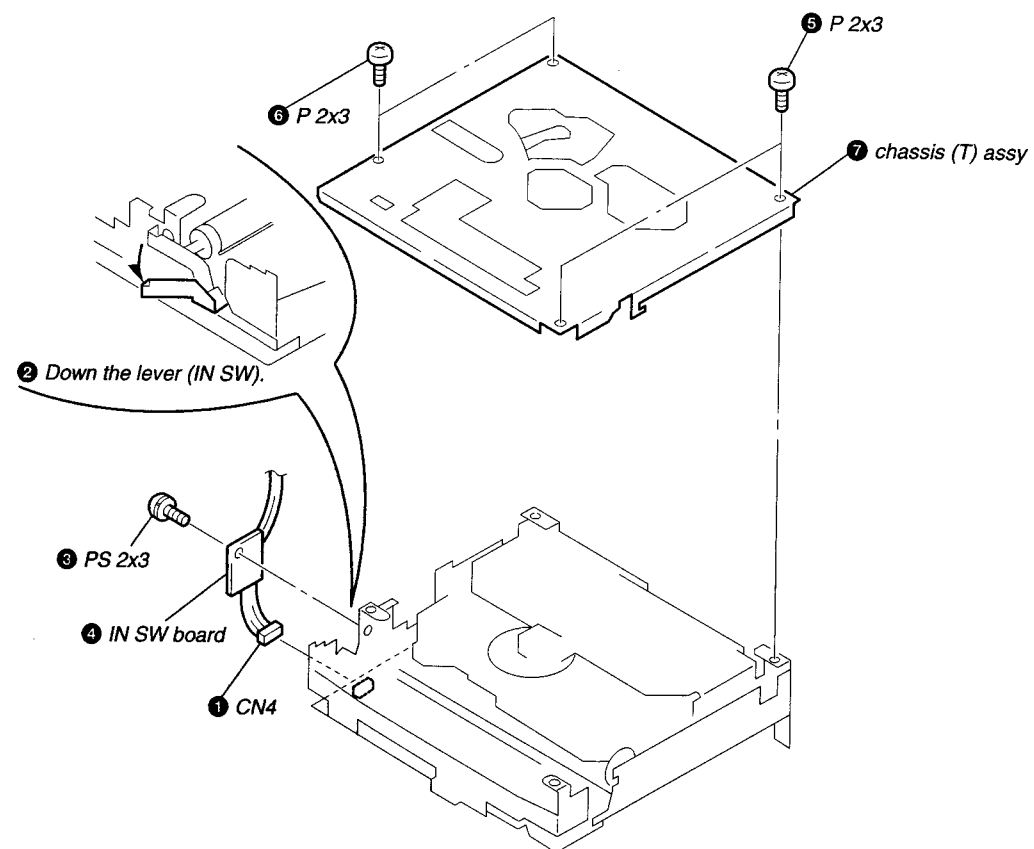
2-7. MAIN BOARD



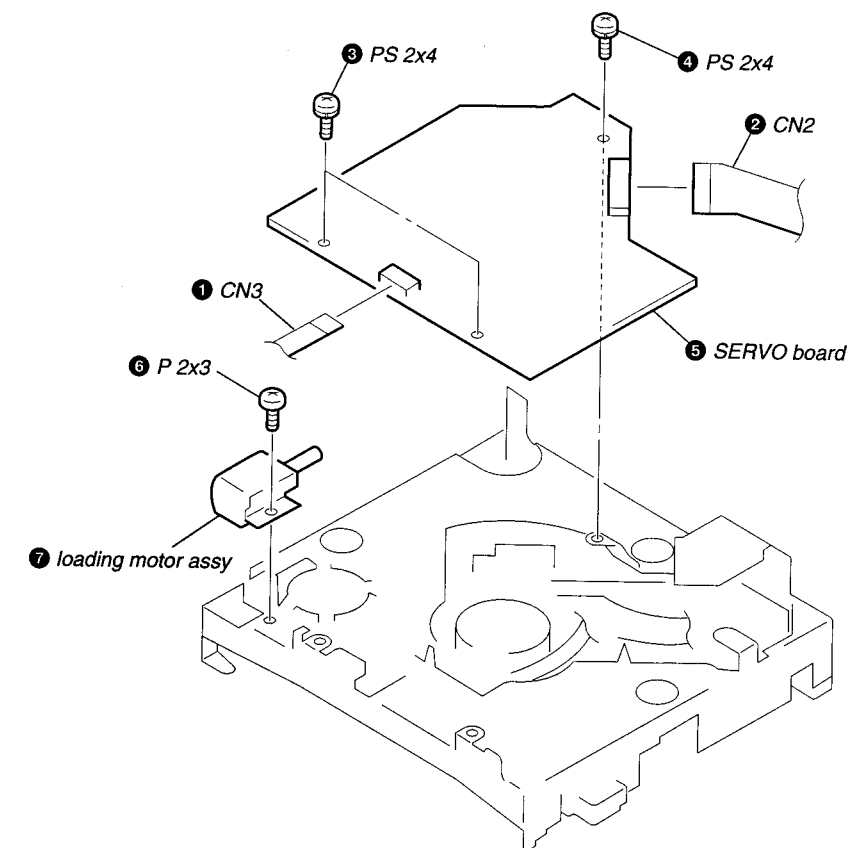
2-9. LEVER (RELEASE T)



2-8. CHASSIS (T) ASSY

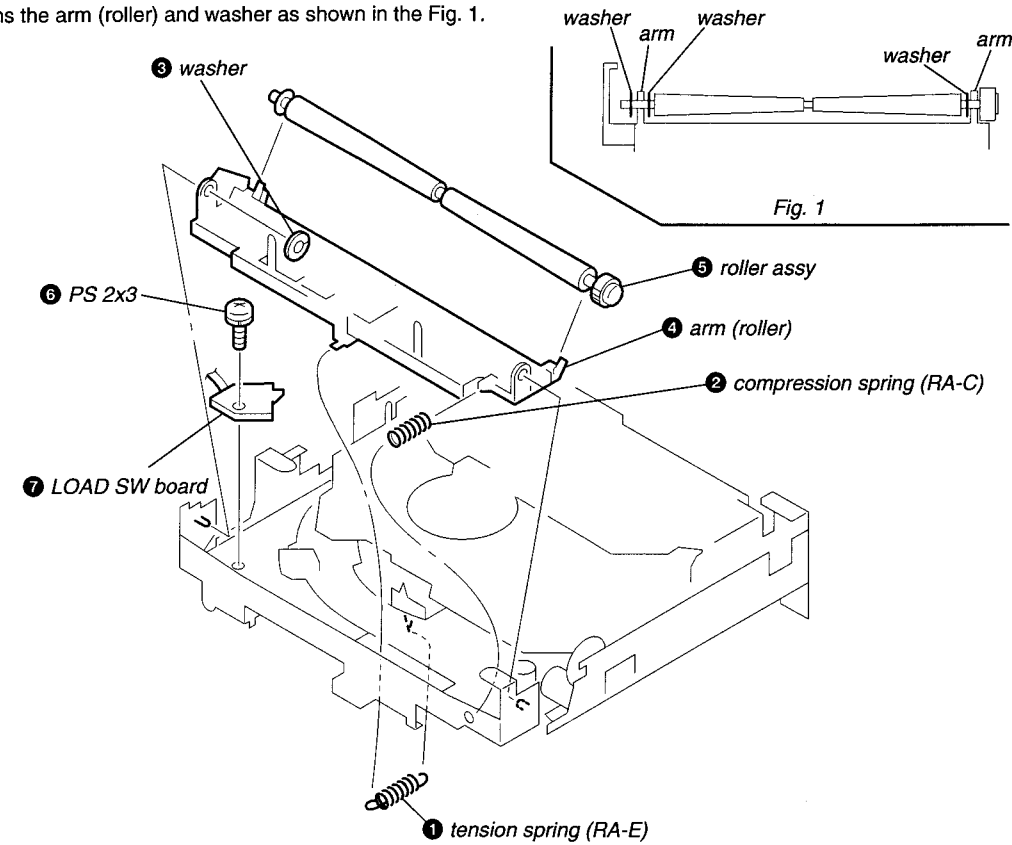


2-10. SERVO BOARD

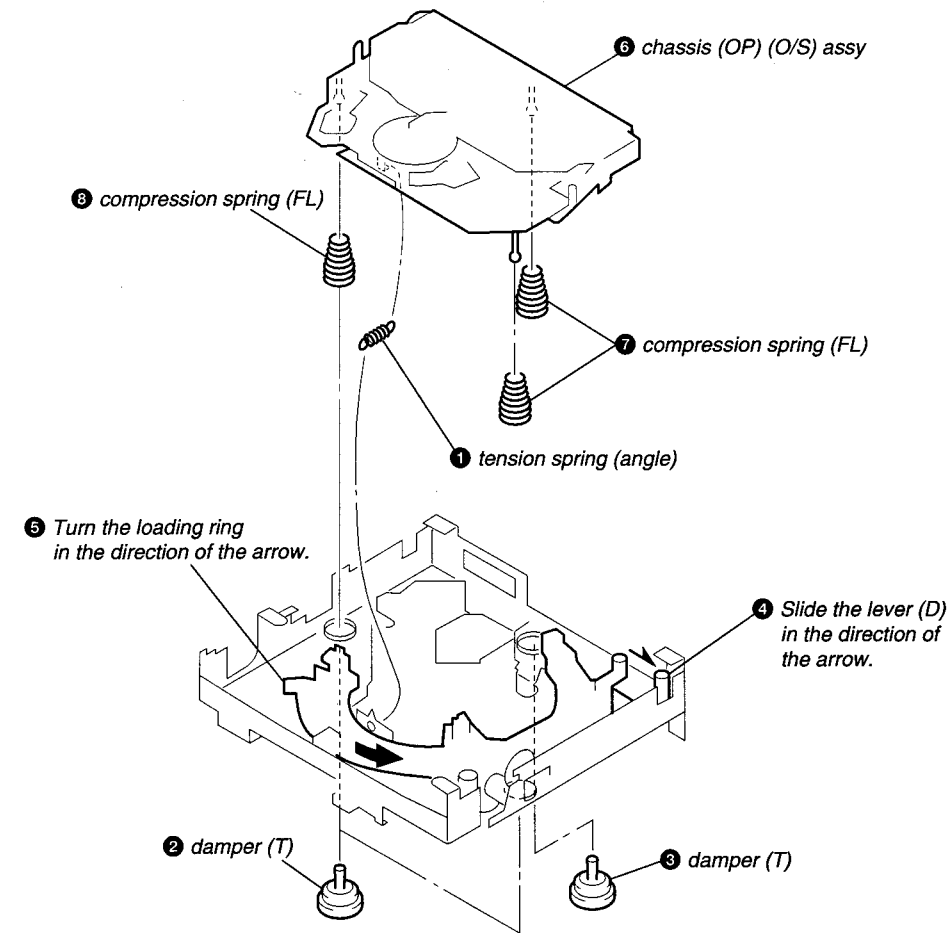


2-11. ROLLER ASSY

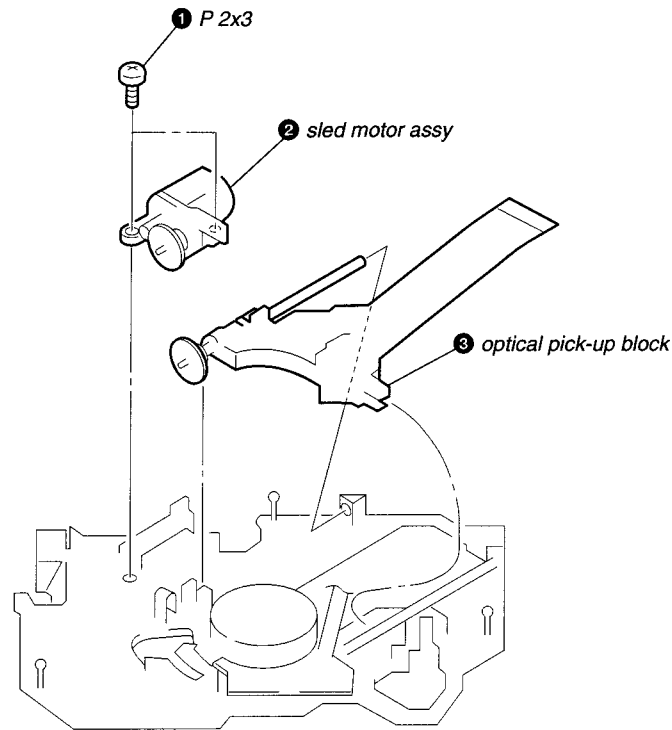
Note: Positions the arm (roller) and washer as shown in the Fig. 1.



2-12. CHASSIS (OP) (O/S) ASSY



2-13. OPTICAL PICK-UP BLOCK

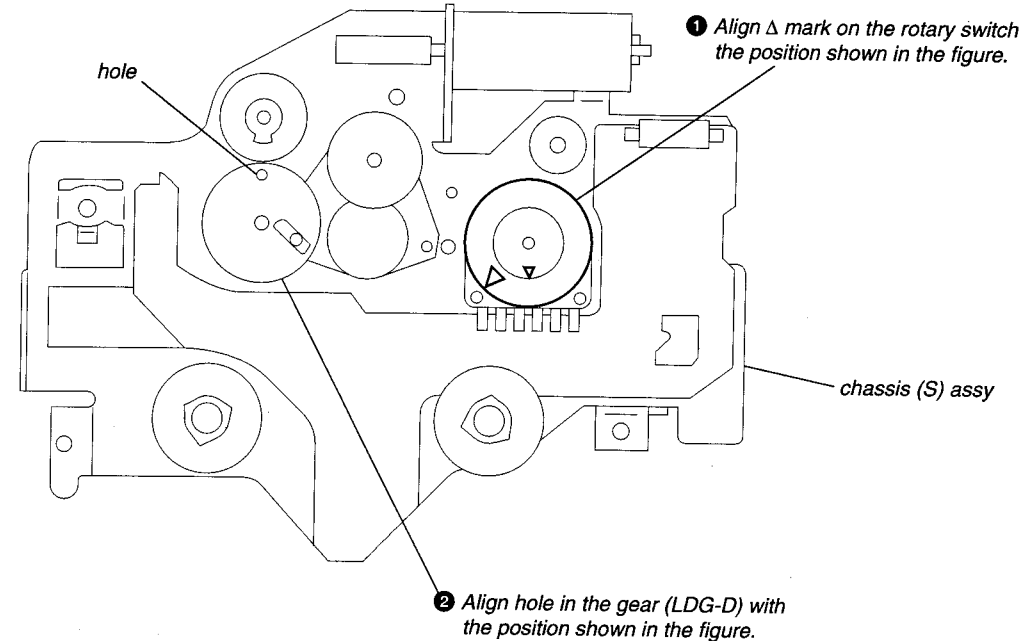


SECTION 3

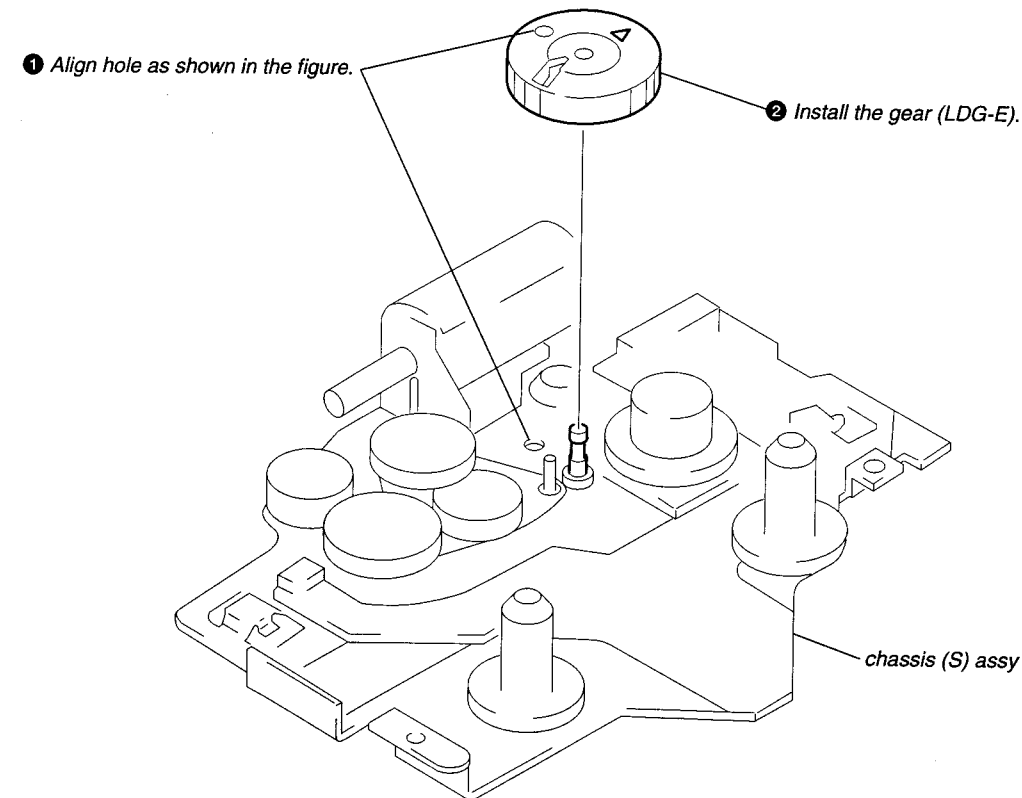
ASSEMBLY OF TAPE MECHANISM

Note : Follow the assembly procedure in the numerical order given.

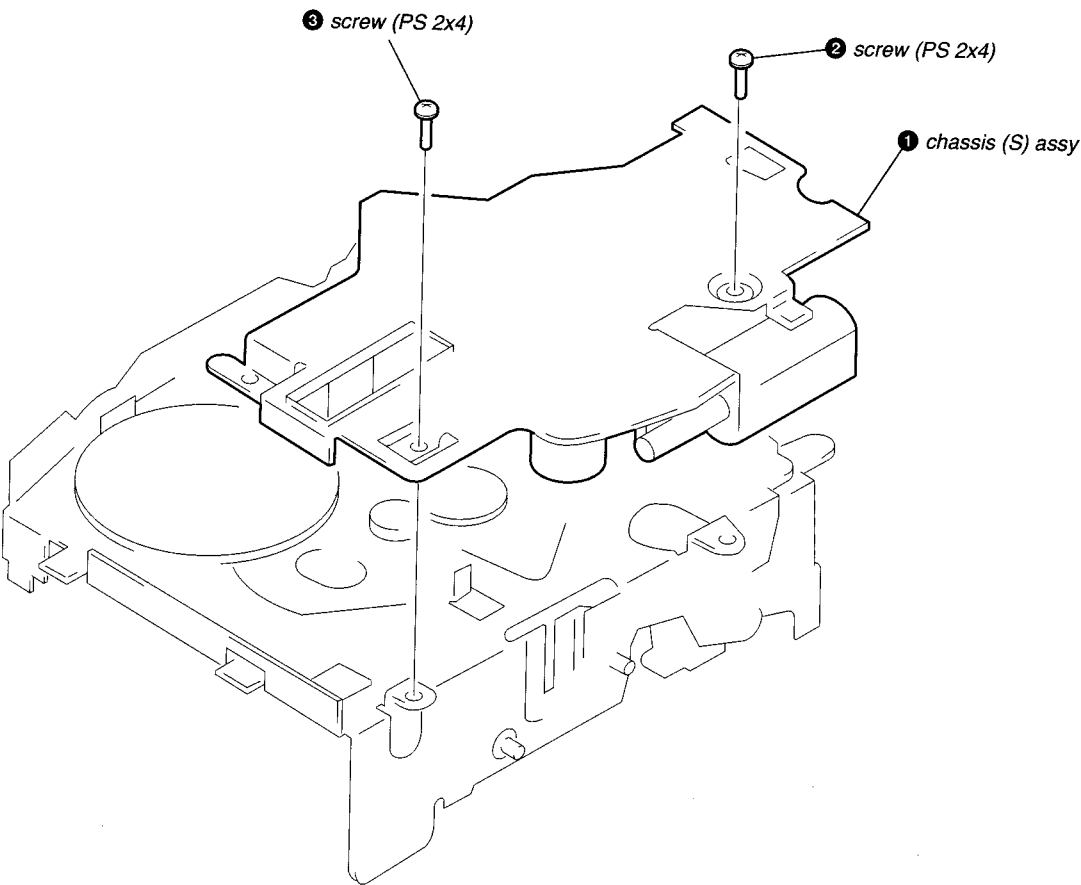
ALIGNMENT OF ROTARY SWITCH



GEAR (LDG-E)

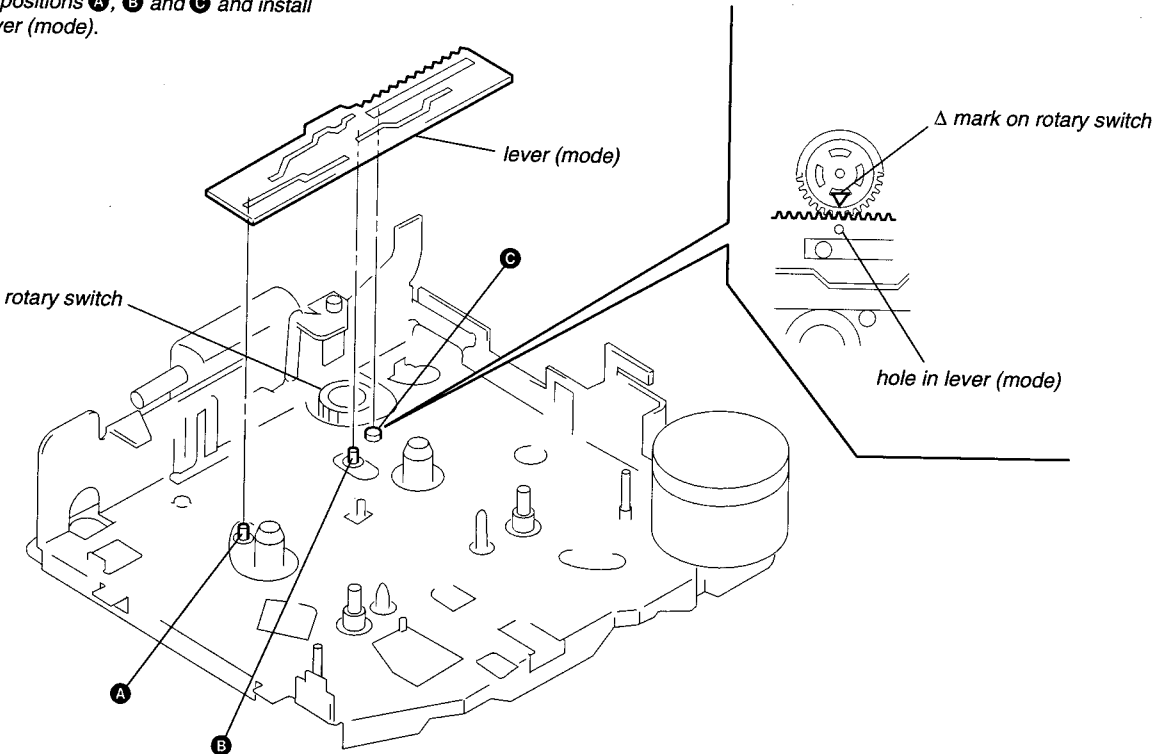


CHASSIS (S) ASSY

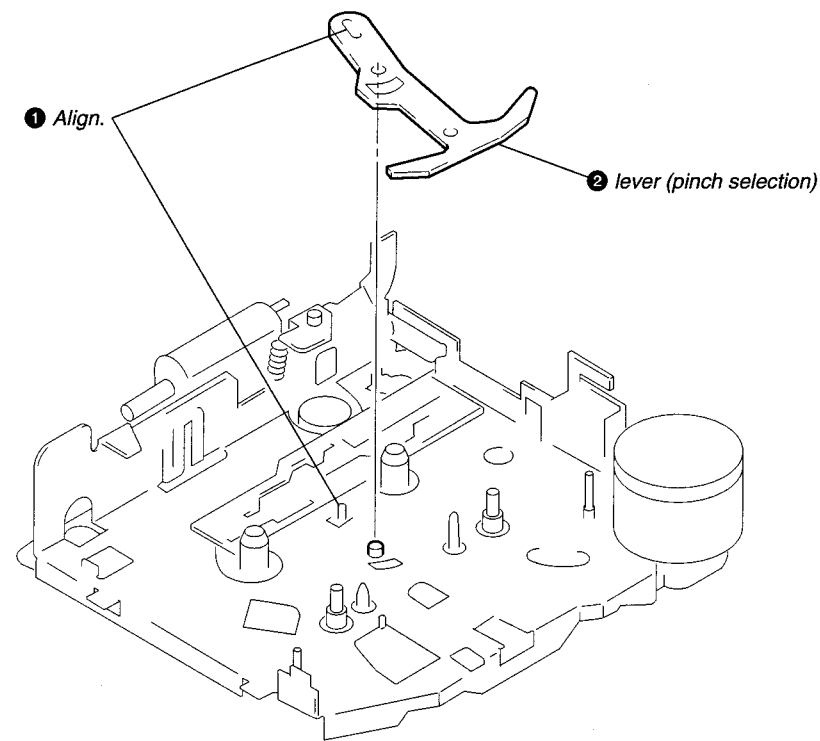


LEVER (MODE)

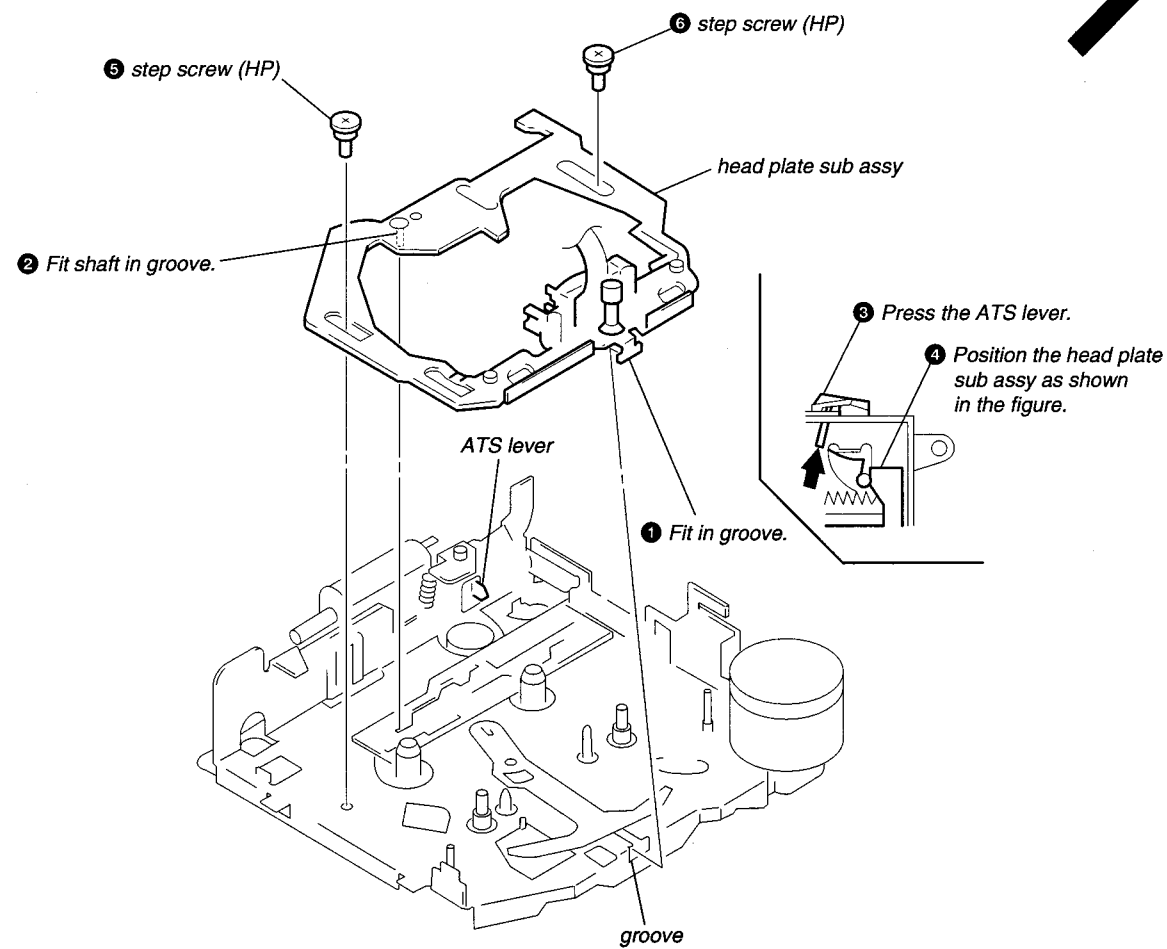
1. Align Δ mark on the rotary switch with hole in the lever (mode).
2. Fit on positions A, B and C and install the lever (mode).



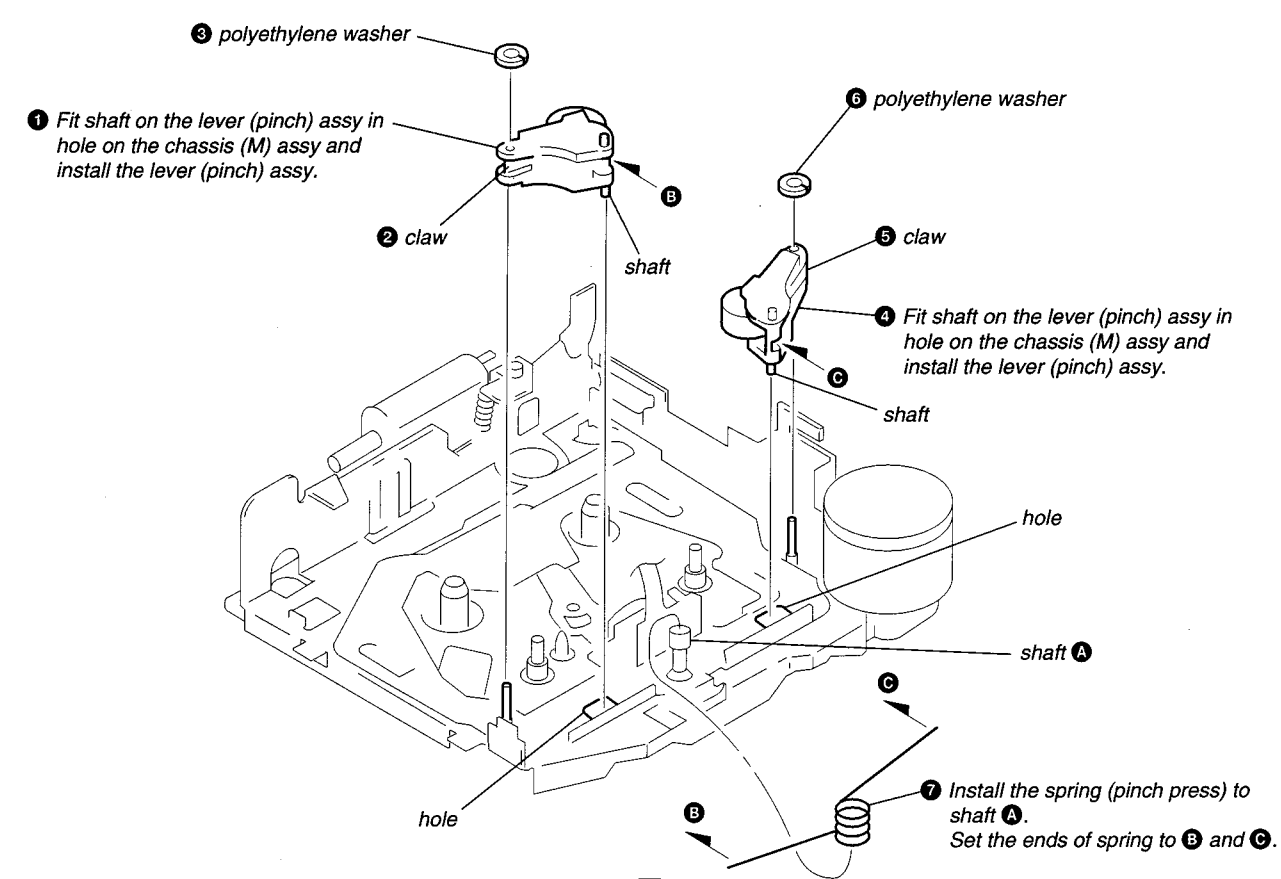
LEVER (PINCH SELECTION)



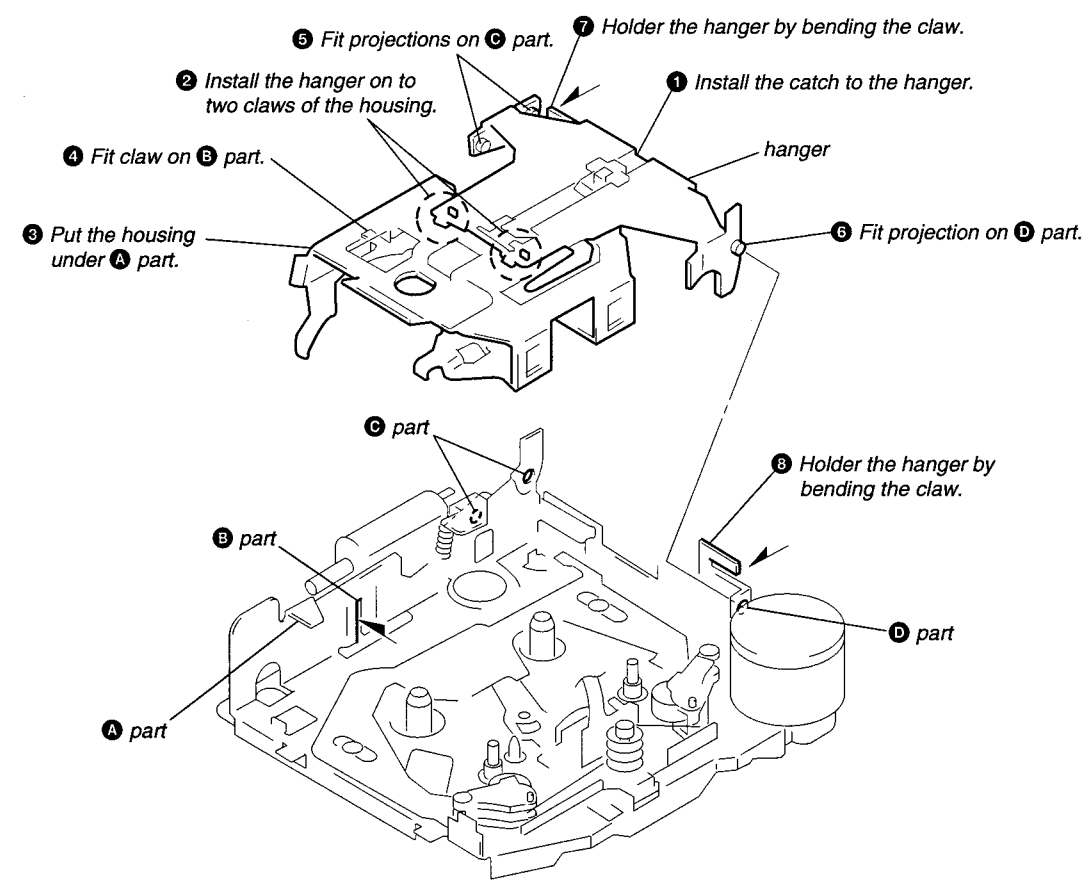
HEAD PLATE ASSY



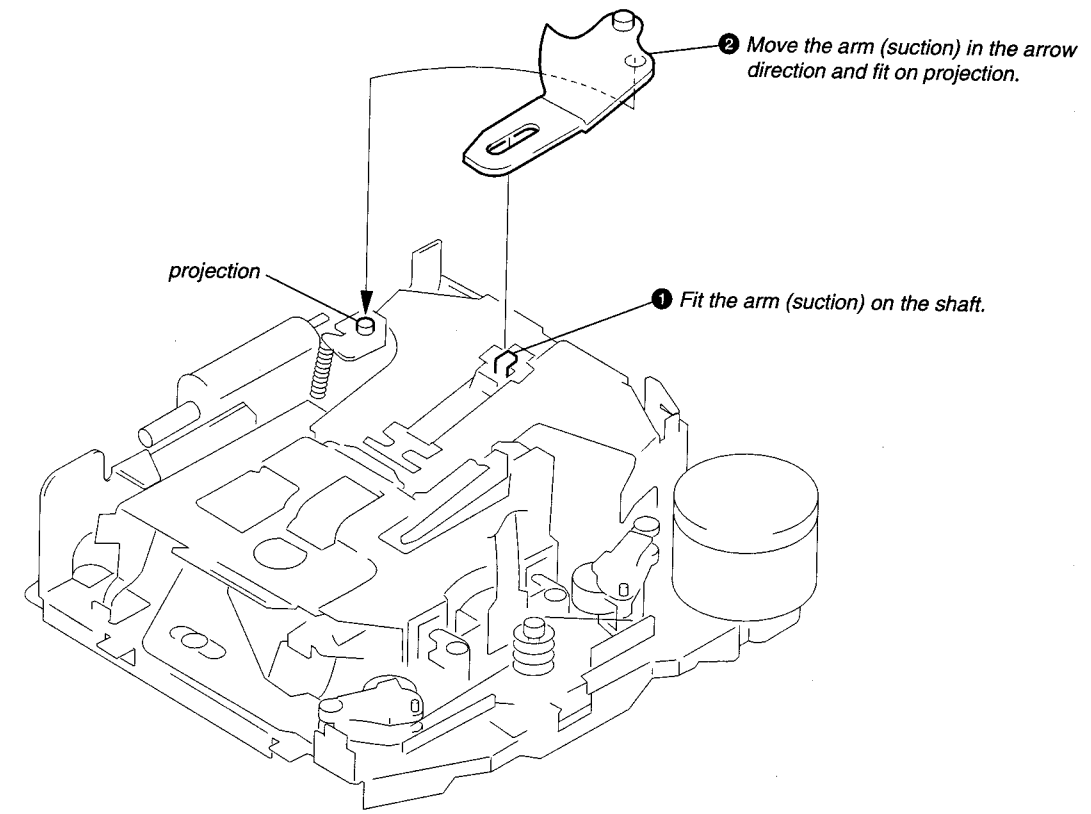
LEVER (PINCH) ASSY



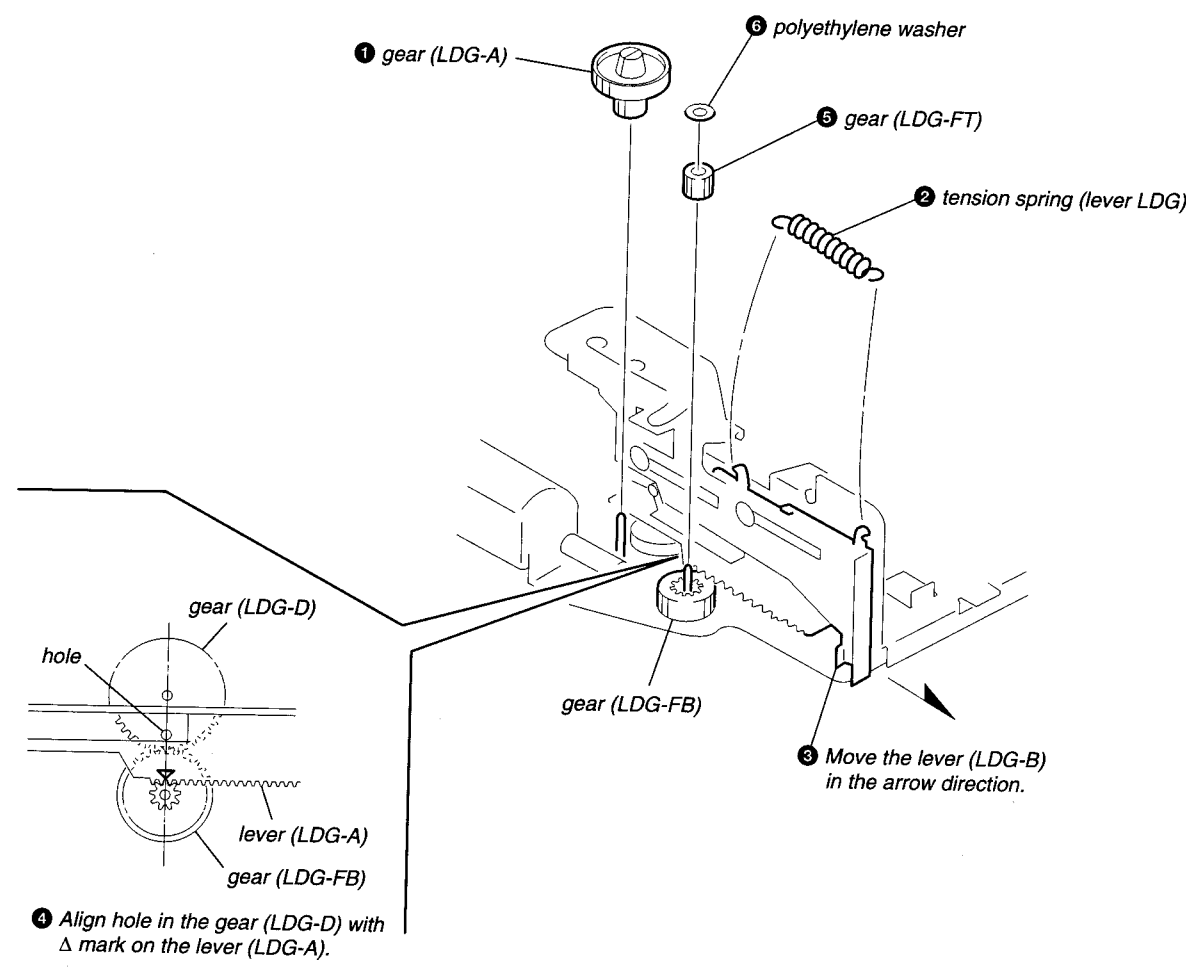
HOUSING



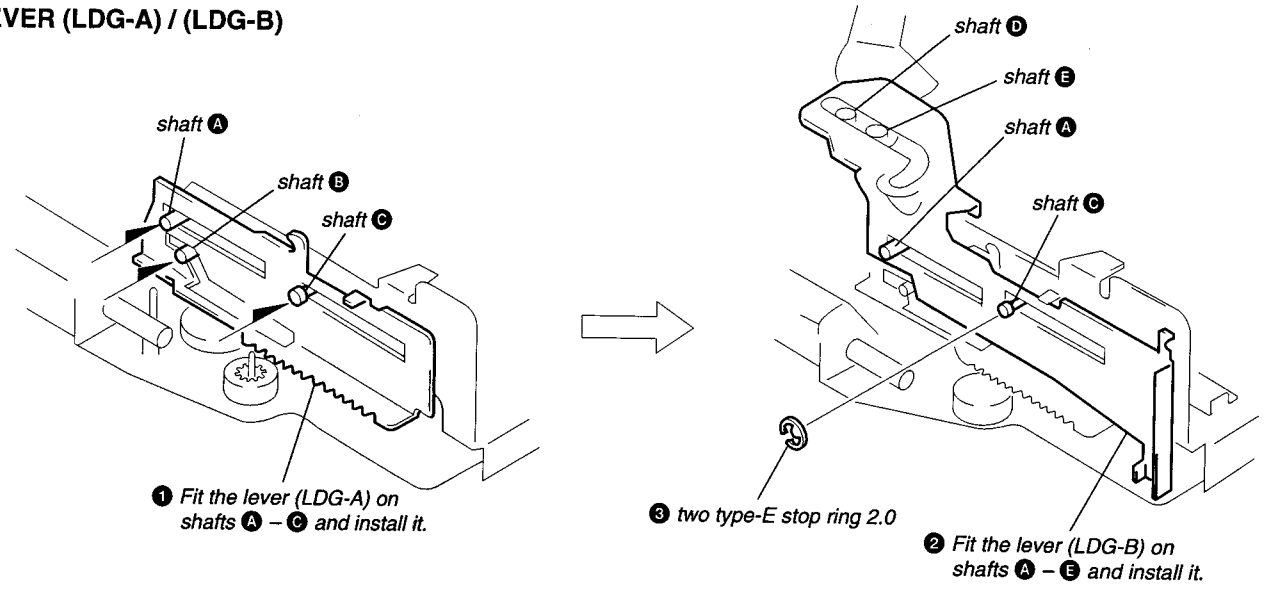
ARM (SUCTION)



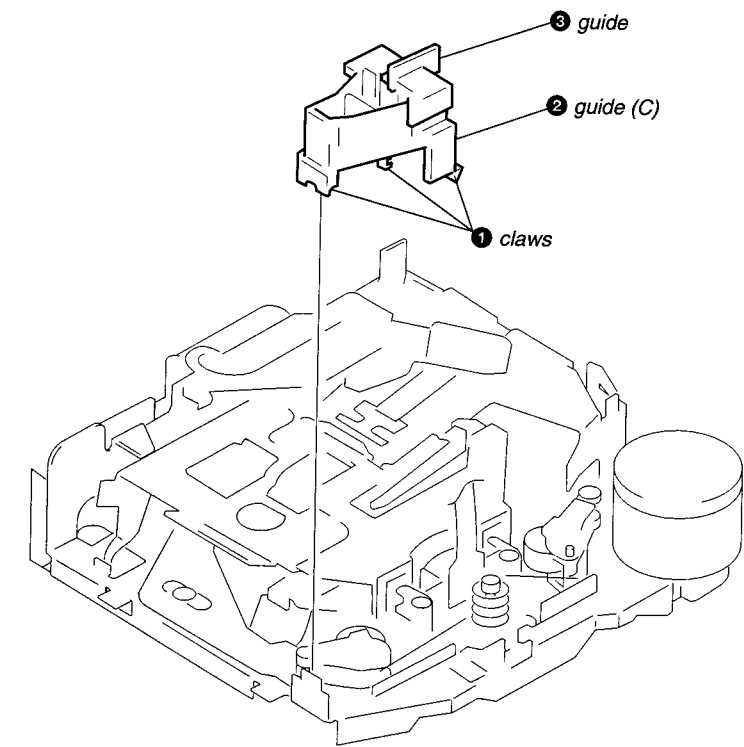
GEAR (LDG-FT)



LEVER (LDG-A) / (LDG-B)



GUIDE (C)



SECTION 4 MECHANICAL ADJUSTMENTS

PRECAUTION

- Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment :

PB head	Pinch roller
Idler	Rubber belt
Capstan	
- Demagnetize the PB head using a head demagnetizer.
- Be careful not to use a magnetized screwdriver.
- After the adjustment is completed, lock the adjustment parts using screws.
- Unless otherwise specified, make adjustments at the specified voltage (14.4 V).

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	30 – 65 g • cm (0.42 – 0.90 oz • inch)
Back Tension		0.5 – 4.5 g • cm (0.01 – 0.06 oz • inch)
REV	CQ-102RC	30 – 65 g • cm (0.42 – 0.90 oz • inch)
Back Tension		0.5 – 4.5 g • cm (0.01 – 0.06 oz • inch)
FF, REW	CQ-201B	60 – 200 g • cm (0.83 – 2.78 oz • inch)

Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 90 g
REV	CQ-403R	(more than 3.17 oz)

SECTION 5 ELECTRICAL ADJUSTMENTS

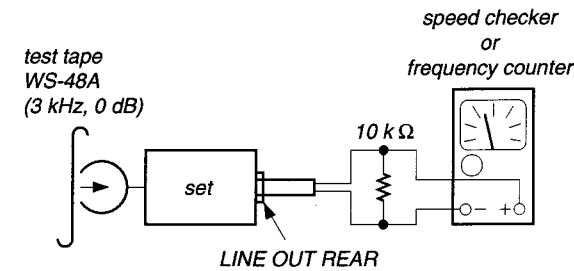
See the adjustment location from on page 34 for the adjustment.

TAPE SECTION 0 dB = 0.775 V

Tape Speed Adjustment

Procedure :

- Put the set into the FWD PB mode.



Specification : Constant speed

Speed checker	Frequency counter
+ 0.3 to + 1.0 %	3,010 to 3,030 Hz

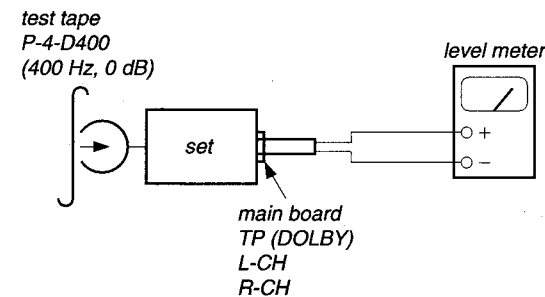
Adjustment Location : See page 34.

DOLBY Level Adjustment

Setting :

SHIFT button : Light up the REP, SETUP and P MODE LEDs.

Preset [9] (P MODE) button : NR off (DOLBY OFF)



Procedure :

- Put the set into the FWD PB mode.
- Adjust RV100 (L-CH) and RV200 (R-CH) on main board so that level meter reading is -6 ± 0.5 dB (0.37 to 0.41 V).

Adjustment Location : See page 34.

TUNER SECTION 0 dB = 1 μV

Cautions during repair

When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan / Stop Level and AM Auto Scan / Stop Level adjustments can be performed easier than it in ordinary procedure.

<Set the Test Mode>

- Set the "POWER SELECT" switch (S501) is "OFF" position.
- Turn ON the regulated power supply. (All LEDs on the set lights up, and the clock is displayed.)
- Push the preset [4] button.
- Push the preset [5] button.
- Press the preset [1] button for more than two seconds.
- Then the display indicates all lights, the test mode is set.

<Release the Test Mode>

- Push the [OFF] button.

Note on Adjustment

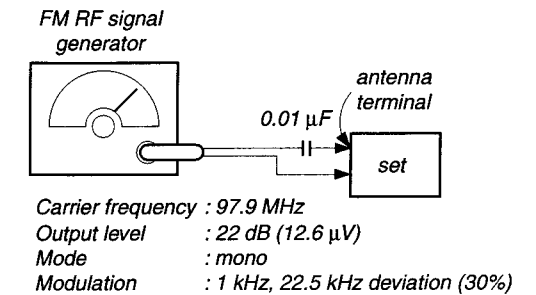
The adjustments of tuner section, should be performed according to the following sequence.

- FM Auto Scan / Stop Level Adjustment
- FM Stereo Separation Adjustment
- AM Auto Scan / Stop Level Adjustment

FM Auto Scan/Stop Level Adjustment

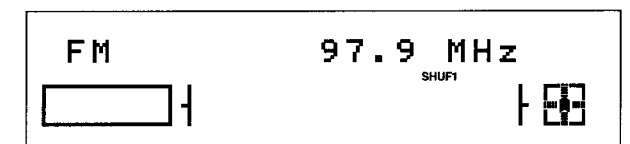
Setting :

TUNER button : FM
FREQUENCY SELECT switch : FM 200 K

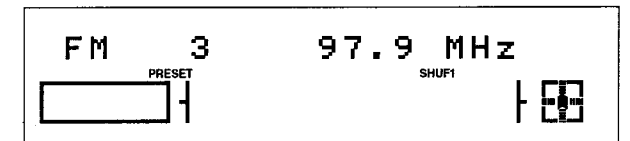


Procedure :

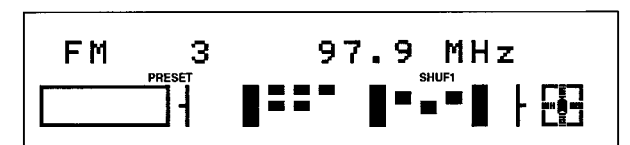
- Set to the test mode.
- Push the [TUNER] button and set to FM.
Display



- Push the preset [3] button.
Display



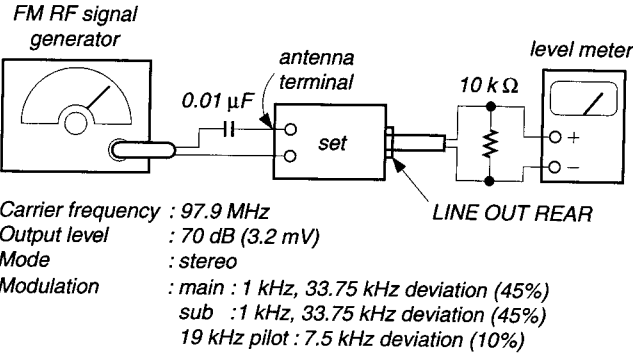
- Adjust with the volume RV2 on TU1 to the position at which the characters "FM" start to scroll from the right on the display window.
Display



Adjustment Location : See page 34.

FM Stereo Separation Adjustment

Setting :
TUNER button : FM
FREQUENCY SELECT switch : FM 200 K



Procedure :

FM stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU1 for minimum reading.

L-CH stereo separation : Ⓐ- Ⓑ
R-CH stereo separation : Ⓒ- Ⓓ
The separations of both channels should be equal.

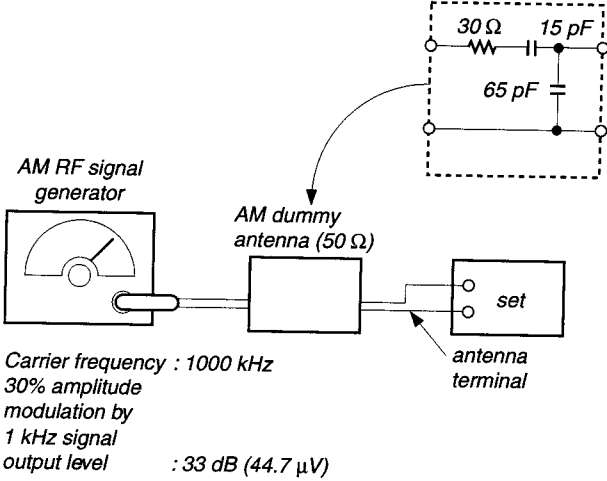
Specification : Separation more than 30 dB

Adjustment Location : See page 34.

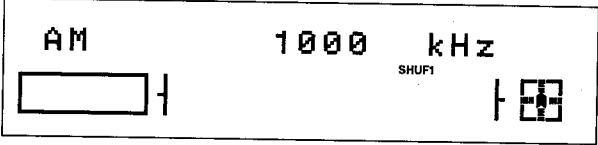
AM Auto Scan/Stop Level Adjustment

Note : This adjustment should be performed after the FM Auto Scan / Stop Level Adjustment is done.

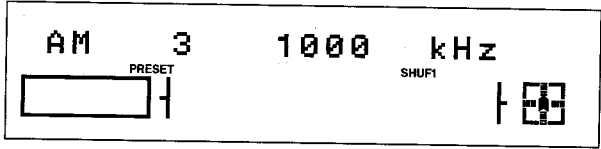
Setting :
TUNER button (twice) : AM
FREQUENCY SELECT switch : AM 10 K



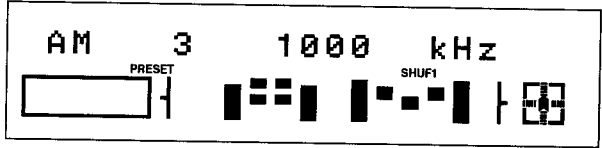
- Procedure :
- Set to the test mode. (See page 32.)
 - Push twice the **TUNER** button and set to AM.
Display



- Push the preset **3** button.
Display



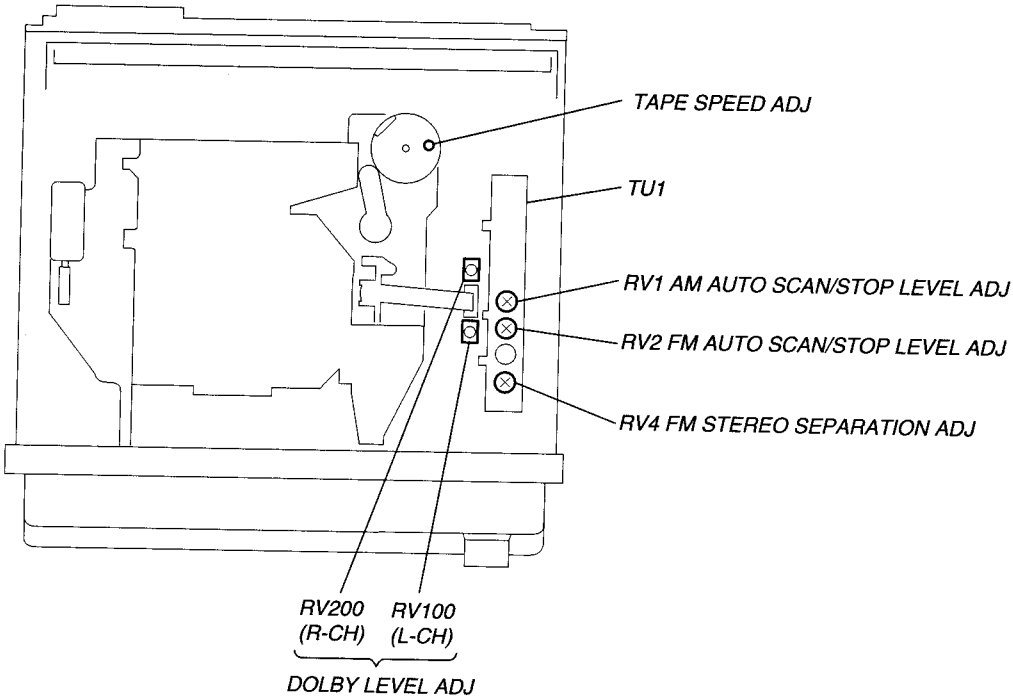
- Adjust with the volume RV1 on TU1 to the position at which the characters "AM" start to scroll from the right on the display window.
Display



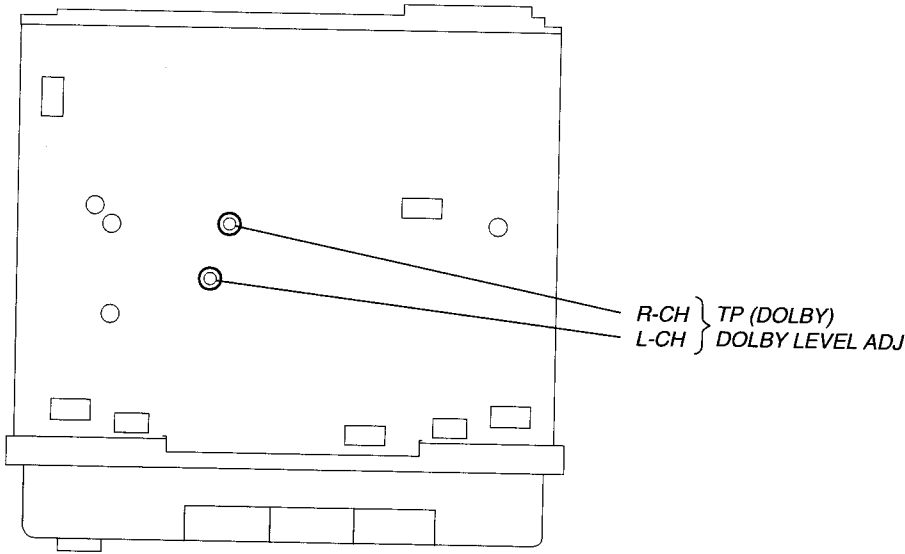
Adjustment Location : See page 34.

Adjustment Location :

- set upper view -



- set lower view -



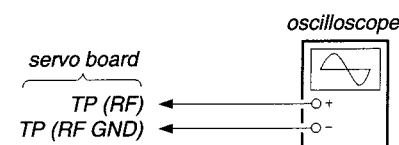
CD SECTION

Note :

1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10 M Ω impedance.
4. Clean an objective lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

Focus Bias Adjustment

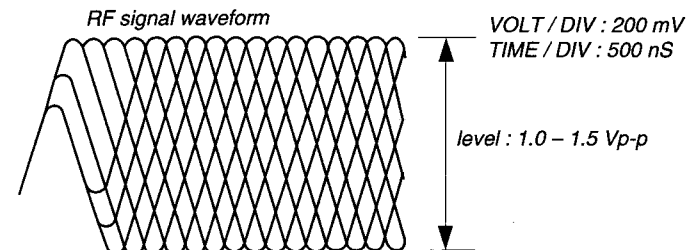
Setting : This adjustment is performed with the set placed horizontally.



Procedure :

1. Connect an oscilloscope between TP (RF) and TP (RF GND) on the servo board.
2. Connect the power supply.
3. Push the **RESET** button (SW701) on the control board.
4. Insert the disc (YEDS-18) and playback.
5. Adjust RV1 so that the oscilloscope waveform is clear and check RF signal level is correct or not.

Note : Clear RF signal waveform means that the sharp “ $\approx$ ” can be clearly distinguished at the center of the waveform.



- When observing the eye pattern, set the oscilloscope to AC range and raise the vertical sensitivity so that it may be easily seen.

Adjustment Location : servo board

Focus Gain Adjustment (Coarse adjustment)

This adjustment is not required unless the following parts are replaced:

- Optical pick-up
- RV4

Procedure :

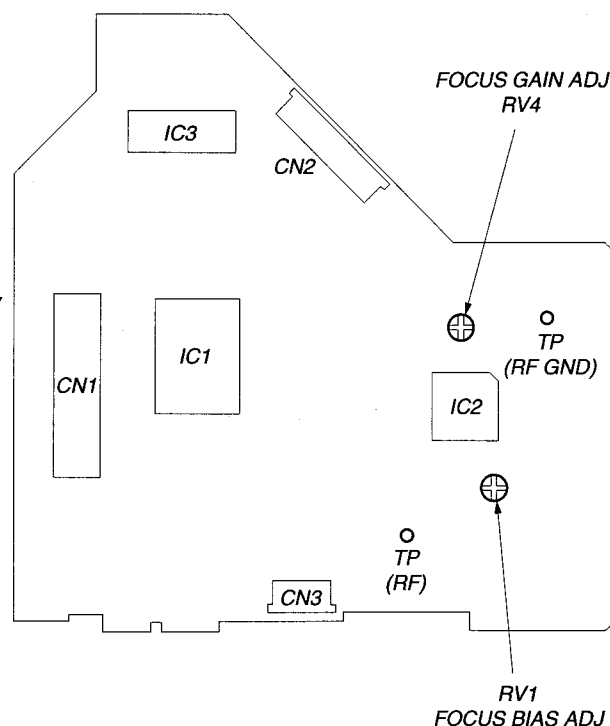
1. Set RV4 to the standard position. (mechanical center)
2. Check whether operation noise (while noise type) caused by the 2-axis device (lens section of the optical pick-up) is abnormally loud.

If the operation noise is too loud, turn RV4 slightly counter-clockwise.

- If the gain is too low :
Focus does not function and no music is selected.
- If the gain is too high :
Noise caused by scratches and dust is heard and the operation becomes unstable.

Adjustment Location : servo board

Adjustment Location : servo board (component side)



SECTION 6 DIAGRAMS

6-1. IC PIN DESCRIPTIONS

• IC301 μ PD78058GC-F48-3B9 (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	VSM	I	FM/AM common signal meter A/D conversion input
2	NIL	I	Not used. (Connect to GND.)
3	SD-IN	I	Station detector detection input
4	AVSS	–	GND for A/D conversion.
5	FM-ST	I/O	Used in conjunction with stereo input/monaural output. (FM mode)
6	AM-ST	I	AM stereo input
7	AVREF	–	Reference voltage power supply for D/A conversion.
8	PLL-SI	I	PLL serial data input
9	PLL-SO	O	PLL serial data output
10	PLL-CKO	O	PLL serial clock output
11	PLL-CE	O	PLL serial chip enable output
12	AMS	I	Music with/without detection input at AMS.
13	PLAY/AMS	O	TAPE AMS control output
14	F/R	O	FWD/REV detection output
15	MTL	O	METAL control output
16	BUS-SI	I	Serial data input (for SONY BUS)
17	BUS-SO	O	Serial data output (for SONY BUS)
18	BUS-CKI	I	Serial clock input (for SONY BUS)
19	BUS-CKO	O	Serial clock output (for SONY BUS)
20	TAPE-MUTE	O	Tape mute control output
21	DOLON	I/O	DOLBY control input/output
22	EQ-CE	O	Equalizer control output
23	EQ-CLK	O	Equalizer control output
24	DATA	O	Serial data output
25	VOL-CLK	O	Electronic volume serial clock output
26	VOL-CE	O	Electronic volume serial chip enable output
27	MUT	O	System mute control output
28	AMP-ON	O	Power amplifier power control output
29	AUX-MUT	O	Not used.
30	C/B	I/O	DOLBY B/C select control input/output (Not used.)
31	PWR-SEL	I	Power select initial setting
32	TEST	I	Test mode setting input
33	VSS	–	Microcomputer GND
34	NIL	I	Not used. (Connect to GND.)
35	POWER-ON	O	System power control output
36	TUN-ON	O	Tuner power control output
37	FM-ON	O	FM power control output
38	AM-ON	O	AM power control output
39	NIL	I	Not used. (Connect to GND.)
40	CM-ON	O	Capstan motor control output
41	TP-ON	O	Tape power control output
42	LM-EJ	O	Loading motor control output (Eject direction)
43	LM-LOD	O	Loading motor control output (Loading direction)
44, 45	POS1, 0	I	Position signal detection input
46	BEEP	O	Buzzer control output
47, 48	POS2, 3	I	Position signal detection input
49	REL	I	Reel table rotation detection input
50	RC-IN1	I	Rotary commander input
51	SUB-CE	O	Sub volume serial chip enable output
52	SUB-DATA	O	Sub volume serial data output
53	SUB-CLK	O	Sub volume serial clock output

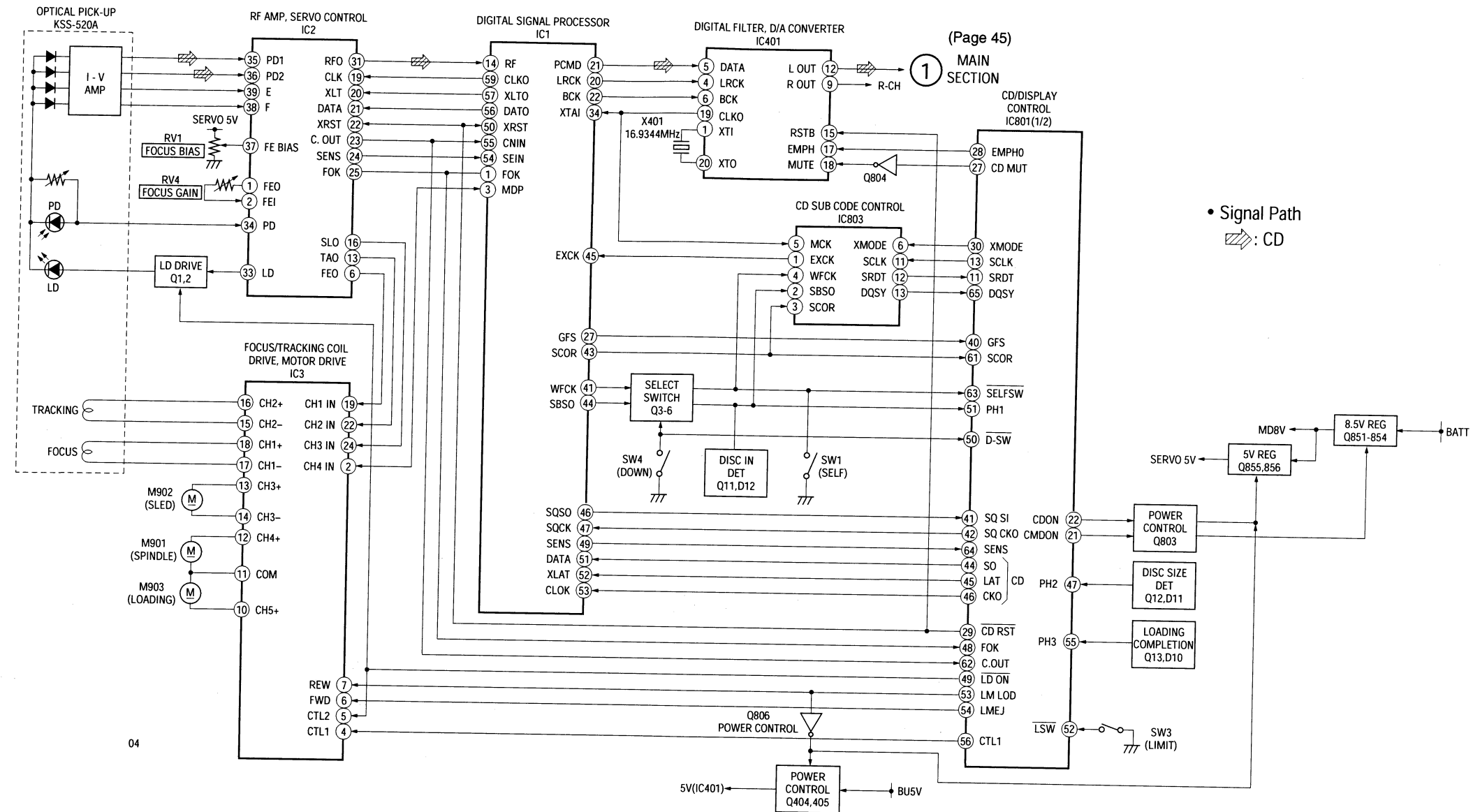
Pin No.	Pin Name	I/O	Pin Description
54	SYS-RST	O	System reset control output
55	BUS-ON	O	BUS ON control output (for SONY BUS)
56, 57	RE1, 0	I	Rotary encoder input
58	AD-ON	O	Power control output for A/D conversion.
59	RAMBU	I	RAM reset detection input
60	RESET	–	Reset input
61	SIRCS	I	Remote commander input
62	BU-IN	I	Backup power detection input
63	NIL	I	Not used. (Connect to GND.)
64	ACC-IN	I	Accessory power detection input
65	DIMMER	I	DIMMER control input
66	TEL-MUTE	I	External mute detection input
67	KEY-ACK	I	Key input acknowledge
68	VDD	–	Microcomputer power supply
69	X2	–	Main oscillator output (5 MHz)
70	X1	–	Main oscillator input (5 MHz)
71	IC	–	Not used. (Connect to GND.)
72	XT2	–	Sub oscillator output (32 kHz)
73	XT1	–	Sub oscillator input (32 kHz)
74	AVDD	–	Power supply for A/D conversion.
75	AVREF	–	Reference voltage power supply for A/D conversion.
76 – 78	KEY-IN0 – 2	I	Key input
79	RC-IN0	I	Rotary commander input
80	DSTSEL	I	Destination initial setting (A/D conversion input)

• IC801 μ PD78058GC-936-3B9 (CD/DISPLAY CONTROL)

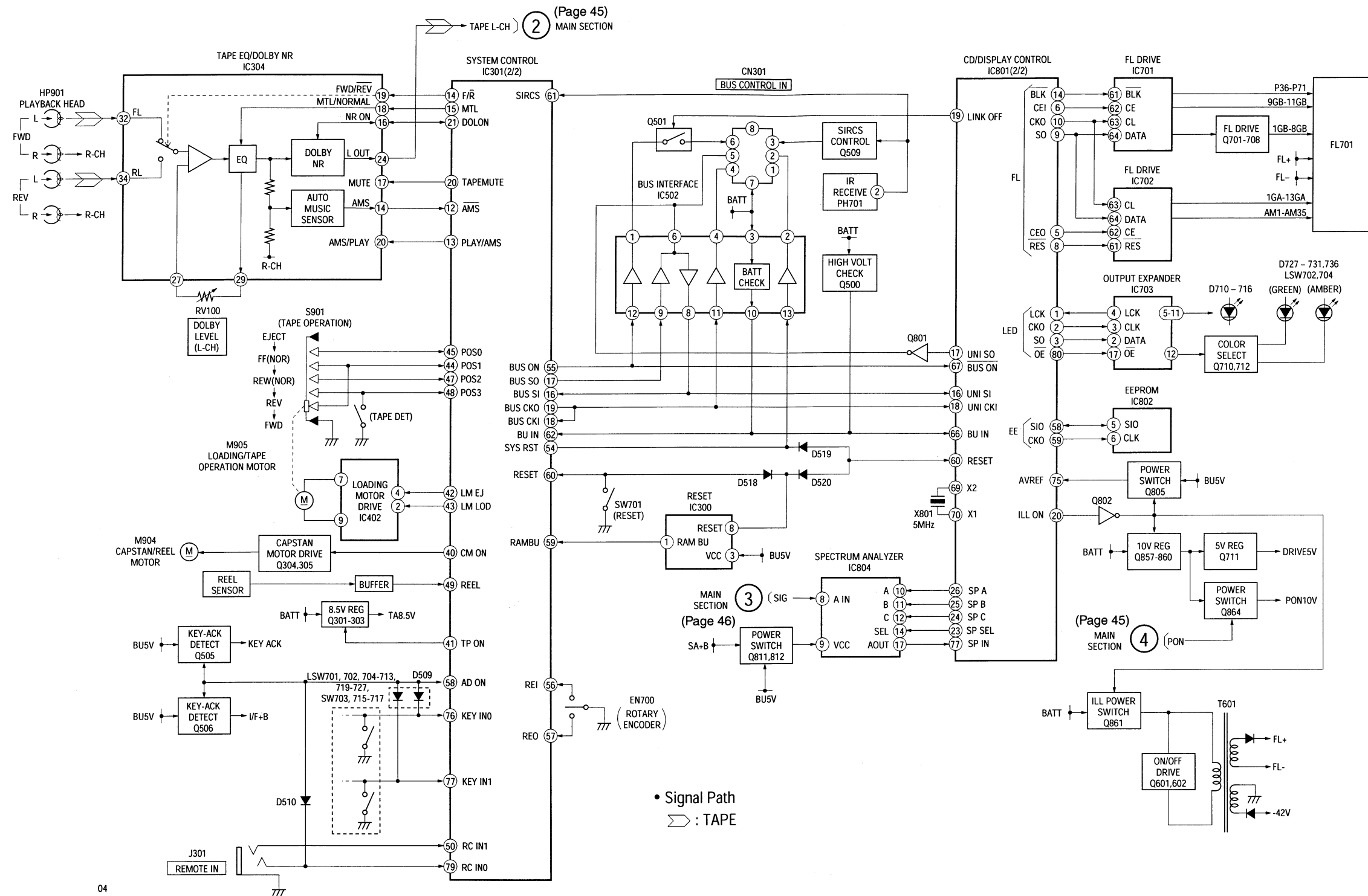
Pin No.	Pin Name	I/O	Pin Description
1	LEDLCK	O	LED driver control output
2	LEDCKO	O	LED driver control output
3	LED SO	O	LED driver control output
4	AVSS	–	GND for A/D conversion.
5, 6	FL-CE0, 1	O	Chip select output for display driver.
7	AVREF1	–	Reference voltage power supply for D/A conversion.
8	FL-RST	O	Display driver reset output
9	FL-SO	O	Serial data output for display driver.
10	FL-CKO	O	Serial clock output for display driver.
11	SRDT	I	Sub code decoder serial data input
12	NCO	O	Not used.
13	SCLK	O	Sub code decoder serial clock output
14	FL-BLK	O	Blank control output for display driver.
15	NIL	I	Not used. (Connect to GND.)
16	UNISI	I	Serial data input (for SONY BUS)
17	UNISO	O	Serial data output (for SONY BUS)
18	UNICKI	I	Serial clock input (for SONY BUS)
19	LINKOFF	O	Link off output
20	ILLON	O	Illumination power control output
21	CDMON	O	CD mechanism power control output
22	CD-ON	O	CD power control output
23	SP-SEL	O	Spectrum analyzer IC control output
24	SP-C	O	Spectrum analyzer IC band select output
25	SP-B	O	Spectrum analyzer IC band select output
26	SP-A	O	Spectrum analyzer IC band select output
27	CDMUT	O	CD mute control output
28	EMPH-O	O	Emphasis control output
29	CD-RST	O	CD signal process IC reset output
30	XMODE	O	Sub code decoder mode control output
31, 32	NIL	I	Not used. (Connect to GND.)
33	VSS	–	Microcomputer GND
34	TBTGSEL	I	CD traverse/tracking gain automatic adjustment select input
35 – 39	NIL	I	Not used. (Connect to GND.)
40	GFS	I	GFS signal detection input
41	SQ-SI	I	SUB Q data input
42	SQ-CKO	O	SUB Q clock output
43	NIL	I	Not used. (Connect to GND.)
44	CD-SO	O	CD signal process serial data output
45	CD-LAT	O	CD signal process latch output
46	CD-CKO	O	CD signal process serial clock output
47	PH2	I	8 cm/12 cm disc detection input
48	F-OK	I	Focus signal detection input
49	LD-ON	O	Laser ON/OFF control output
50	D-SW	I	DOWN switch detection input
51	PH1	I	Disc insert detection input
52	L-SW	I	Sled limit switch detection input
53	LM-LOD	O	Loading motor control output (Loading direction)
54	LM-EJ	O	Loading motor control output (Eject direction)
55	PH3	I	Disc detection sensor input
56	CTL1	O	Driver IC control output 1
57	NCO	O	Not used.
58	EESIO	I/O	CD eject key input/output

Pin No.	Pin Name	I/O	Pin Description
59	EECKO	O	EEPROM serial clock output
60	RESET	–	Reset input
61	SCOR	I	SCOR signal detection input
62	CNIN	I	Track jump number count input
63	SELF-SW	I	Disc self store detection input
64	SENS	I	SENS signal detection input
65	DQSY	I	Sub code decoder block sync input
66	BUIN	I	Backup power detection input
67	BUSON	I	BUS ON control input
68	VDD	–	Microcomputer power supply
69	X2	–	Main oscillator output (5 MHz)
70	X1	–	Main oscillator input (5 MHz)
71	IC	–	Not used. (Connect to GND.)
72	XT2	–	Not used.
73	XT1	–	Not used. (Connect to GND.)
74	AVDD	–	Power supply for A/D conversion.
75	AVREF	–	Reference voltage power supply for A/D conversion.
76	NIL	I	Not used. (Connect to GND.)
77	SP-IN	I	Spectrum analyzer input
78	TSTIN0	I	Load/Eject inhibit setting input
79	NCO	O	Not used.
80	LEDOE	O	LED driver control output

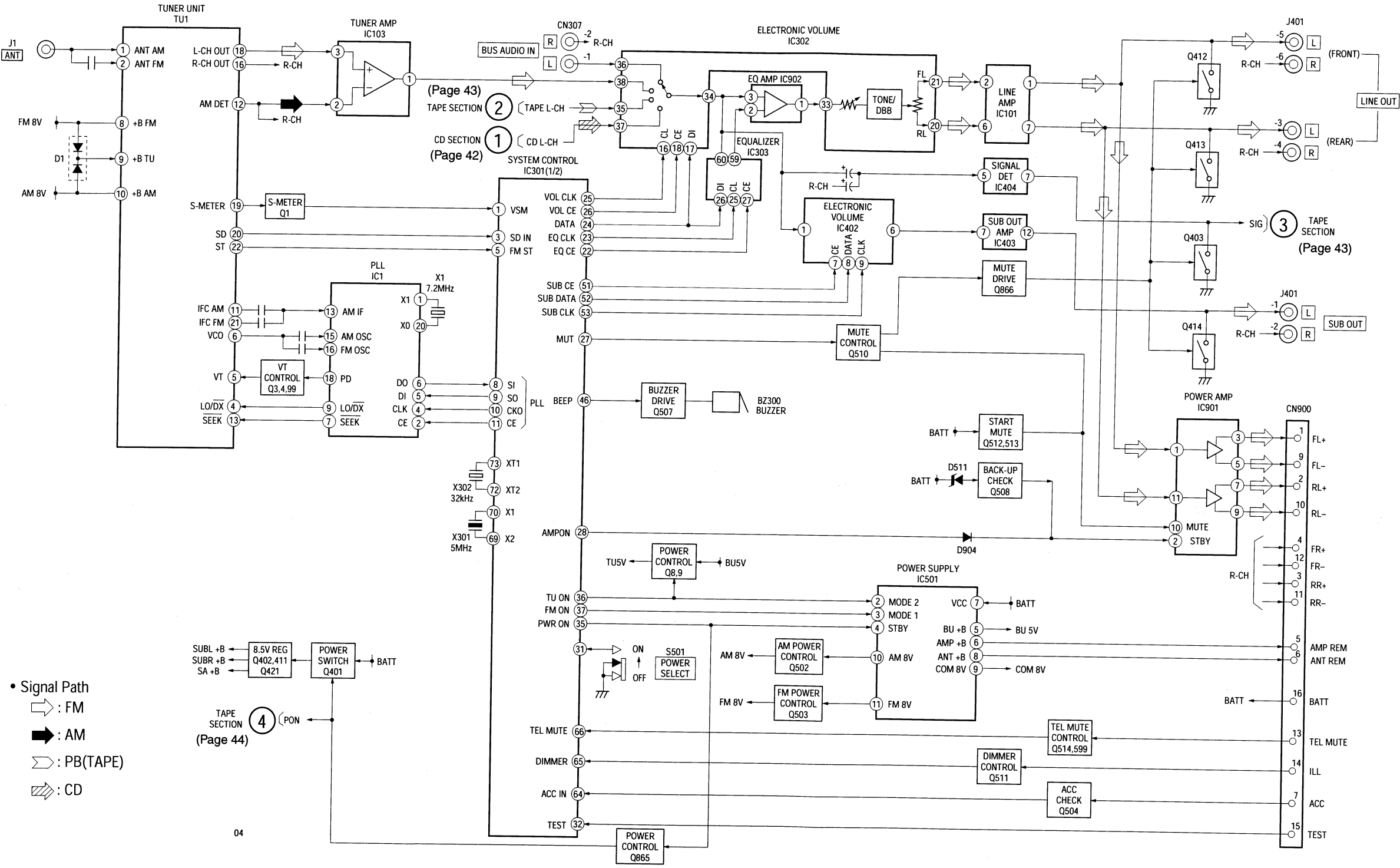
6-2. BLOCK DIAGRAM — CD SECTION —



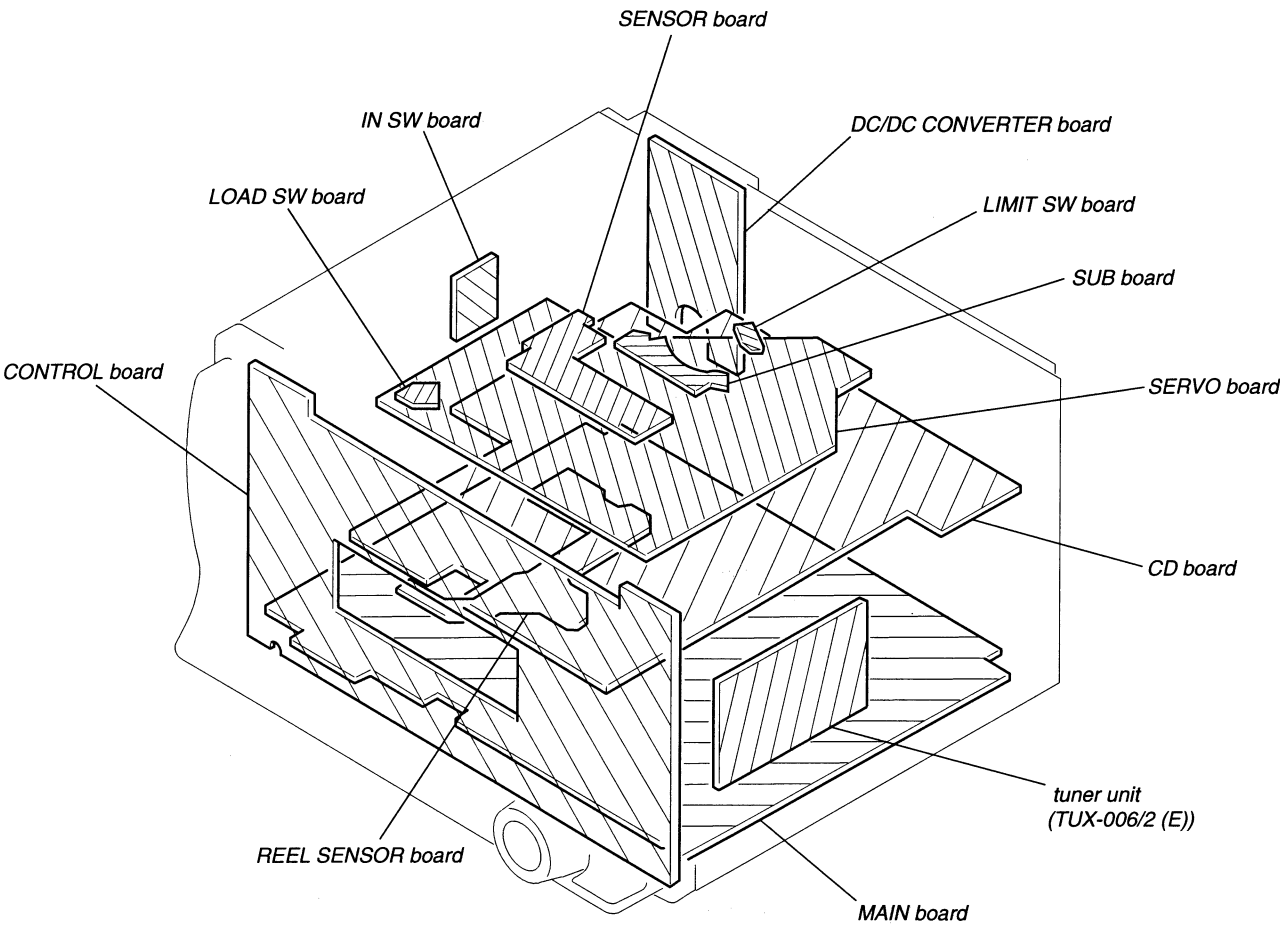
6-3. BLOCK DIAGRAM — TAPE SECTION —



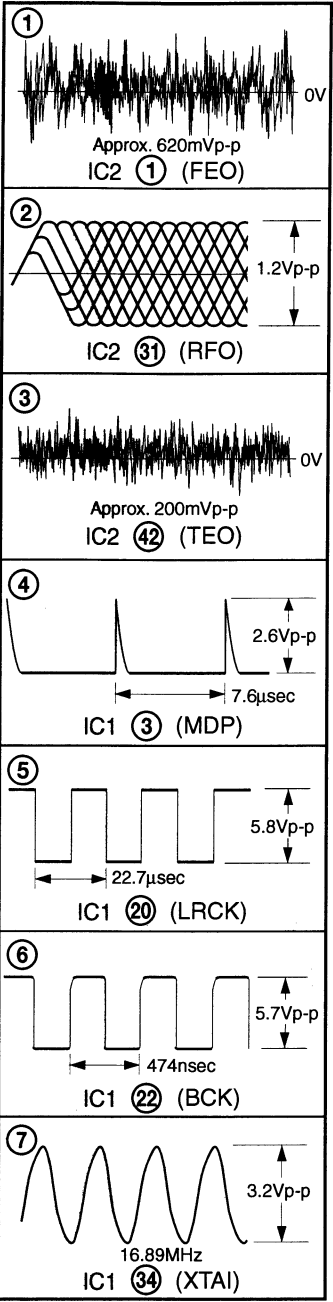
6-4. BLOCK DIAGRAM — MAIN SECTION —



6-5. CIRCUIT BOARDS LOCATION



• Waveforms (MODE:PLAY)

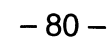
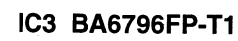


- Note:**
- All capacitors are in μF unless otherwise noted. pF: μF
 - 50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.

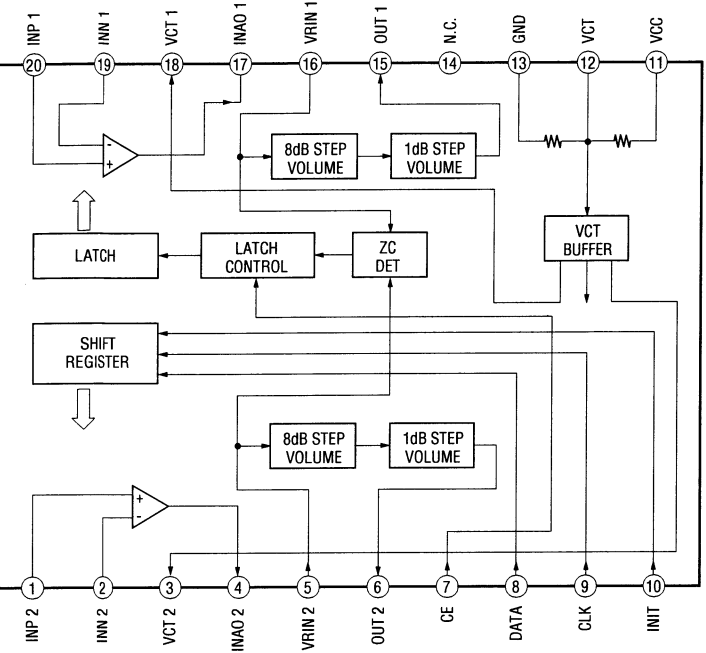
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- $\boxed{B+}$: B+ Line.
- $\boxed{}$: adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- no mark : CD PLAY
- * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- $\Rightarrow$: CD

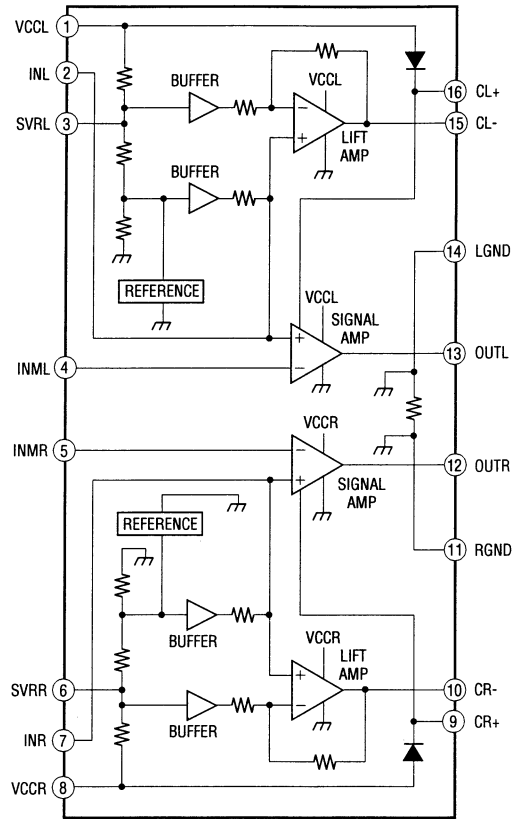
IC1 CXD2507AQ (SERVO board)



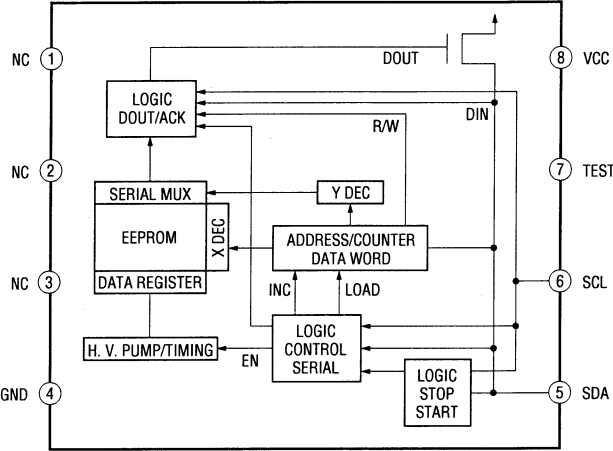
IC402 CXA1846M (CD board)



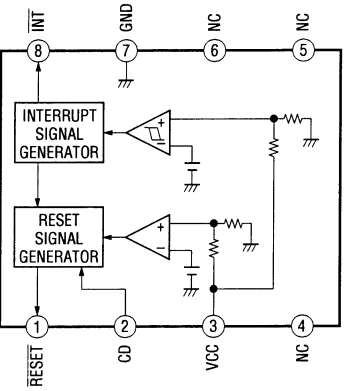
IC403 TDA8574



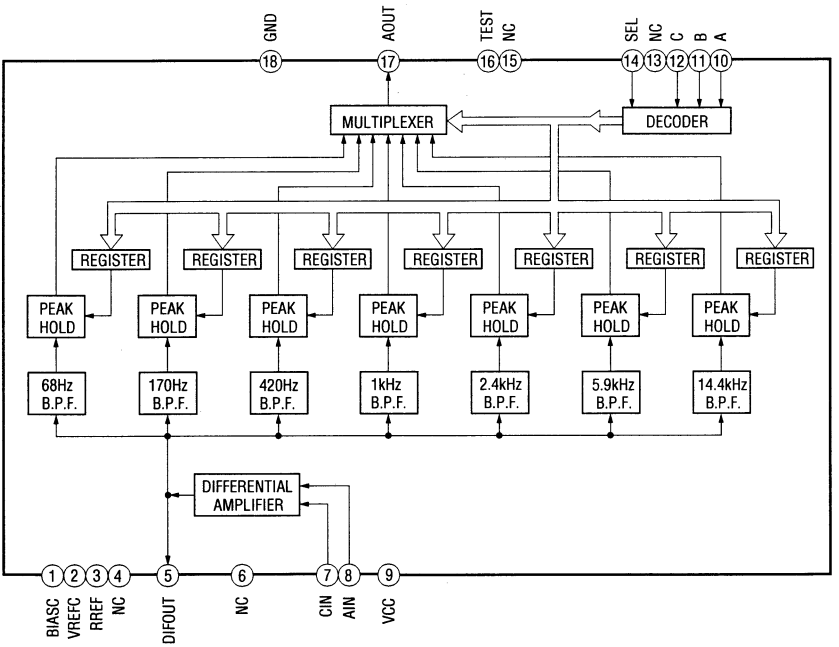
IC802 AT24C16N-10SI-TR



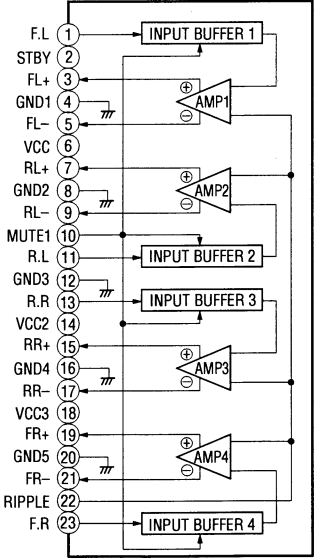
IC300 M62008FP



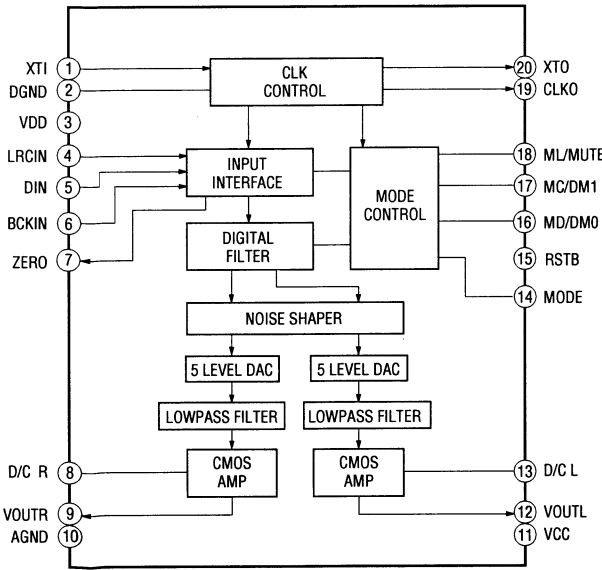
IC804 BA3834F



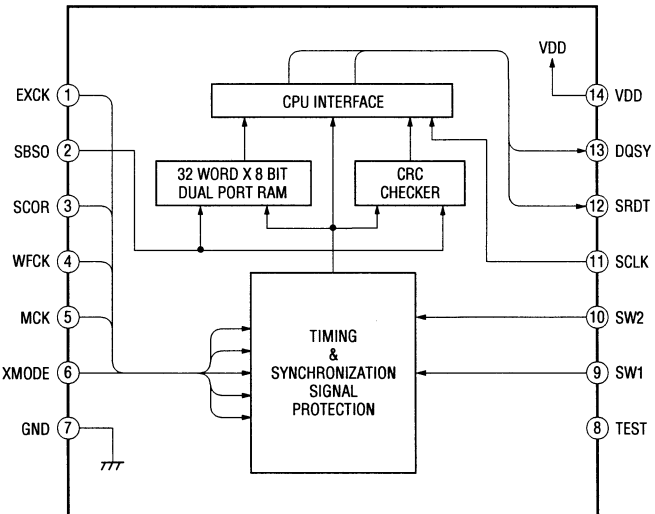
IC901 HA13157



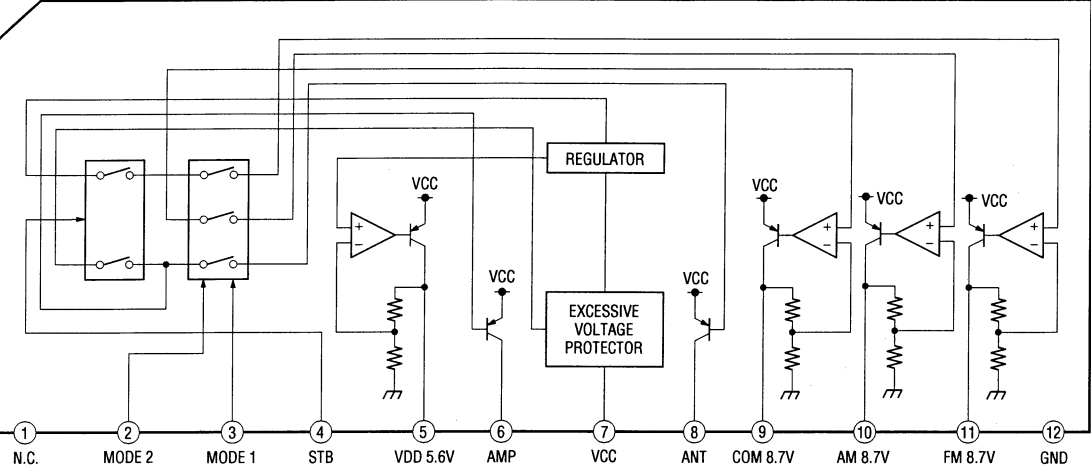
IC401 PCM1717E-S



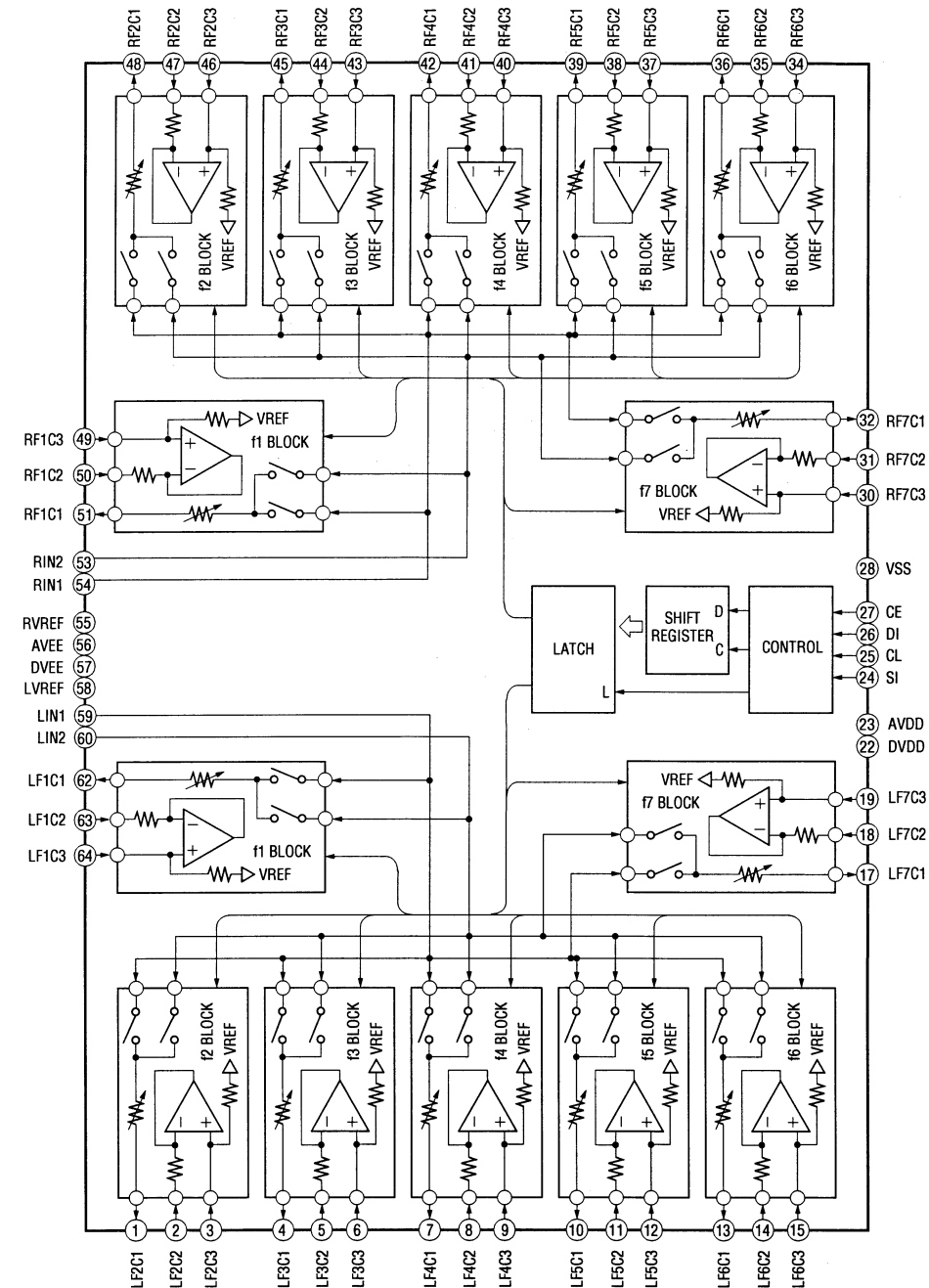
IC803 LC89170M



IC501 BA3918-V2



IC303 LC7527E



SECTION 7
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

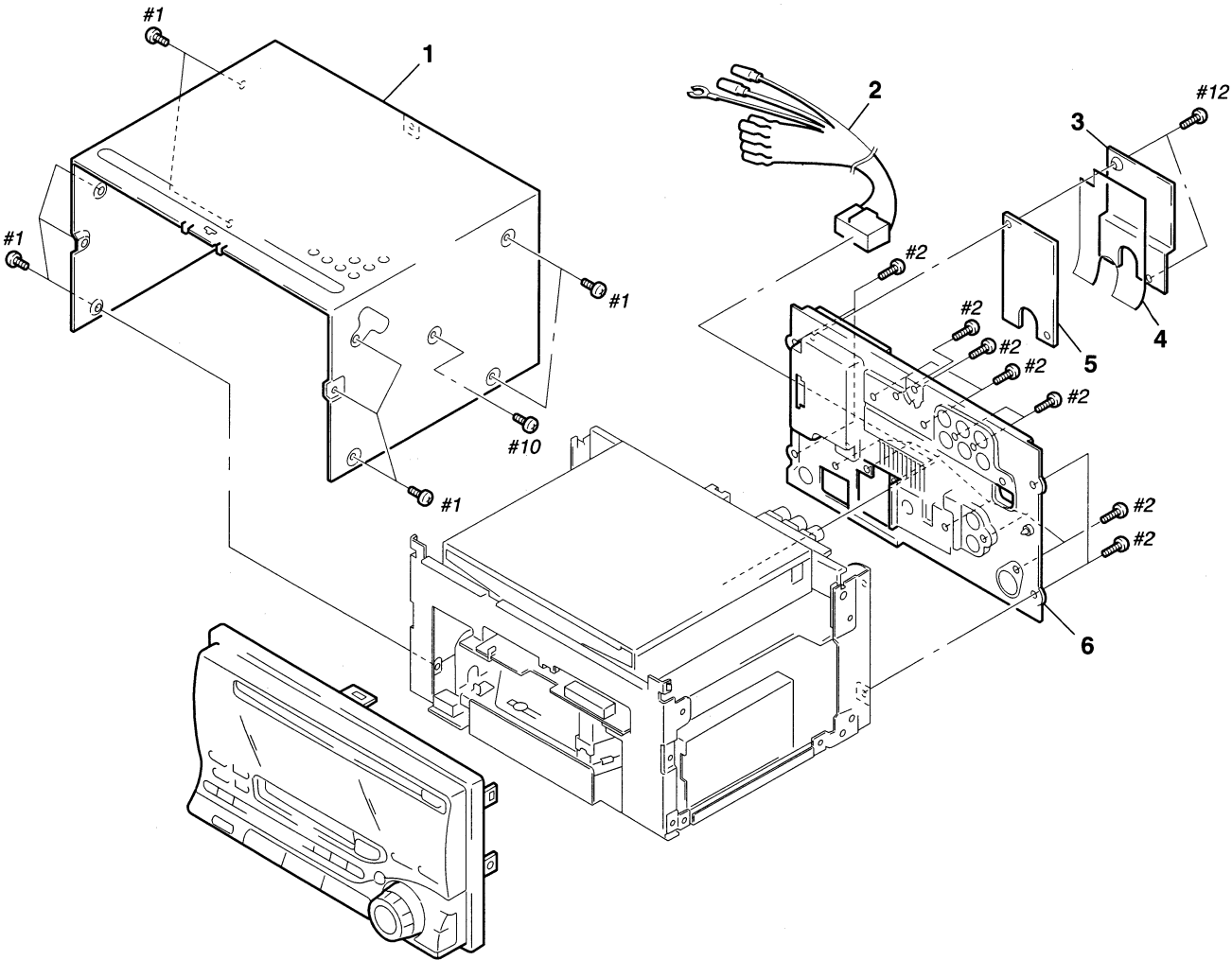
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts

Example :
KNOB, BALANCE (WHITE) ... (RED)
↑ ↑
Parts Color Cabinet's Color

- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

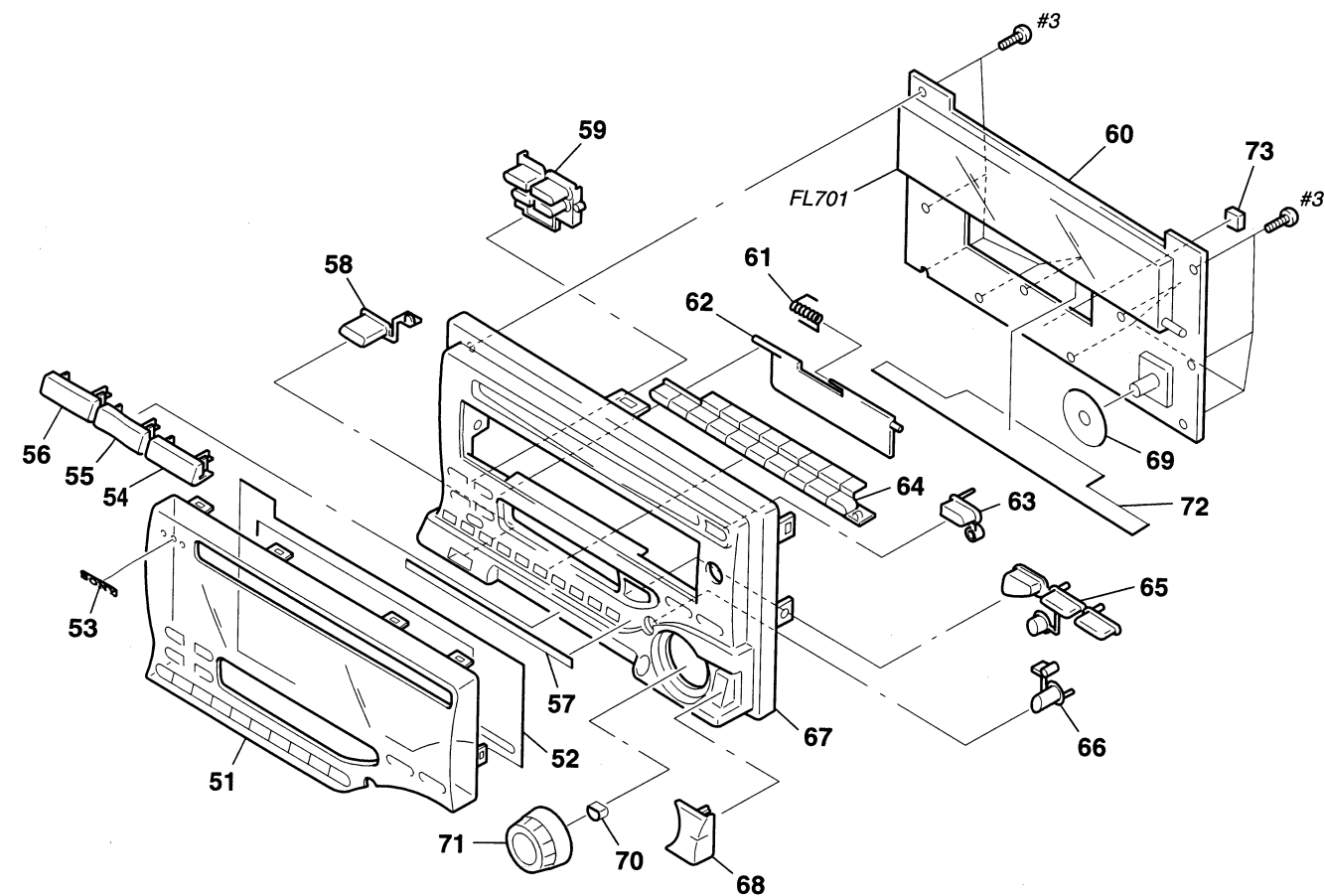
The components identified by mark Δ or dotted line with mark. Δ are critical for safety. Replace only with part number specified.

7-1. COVER SECTION



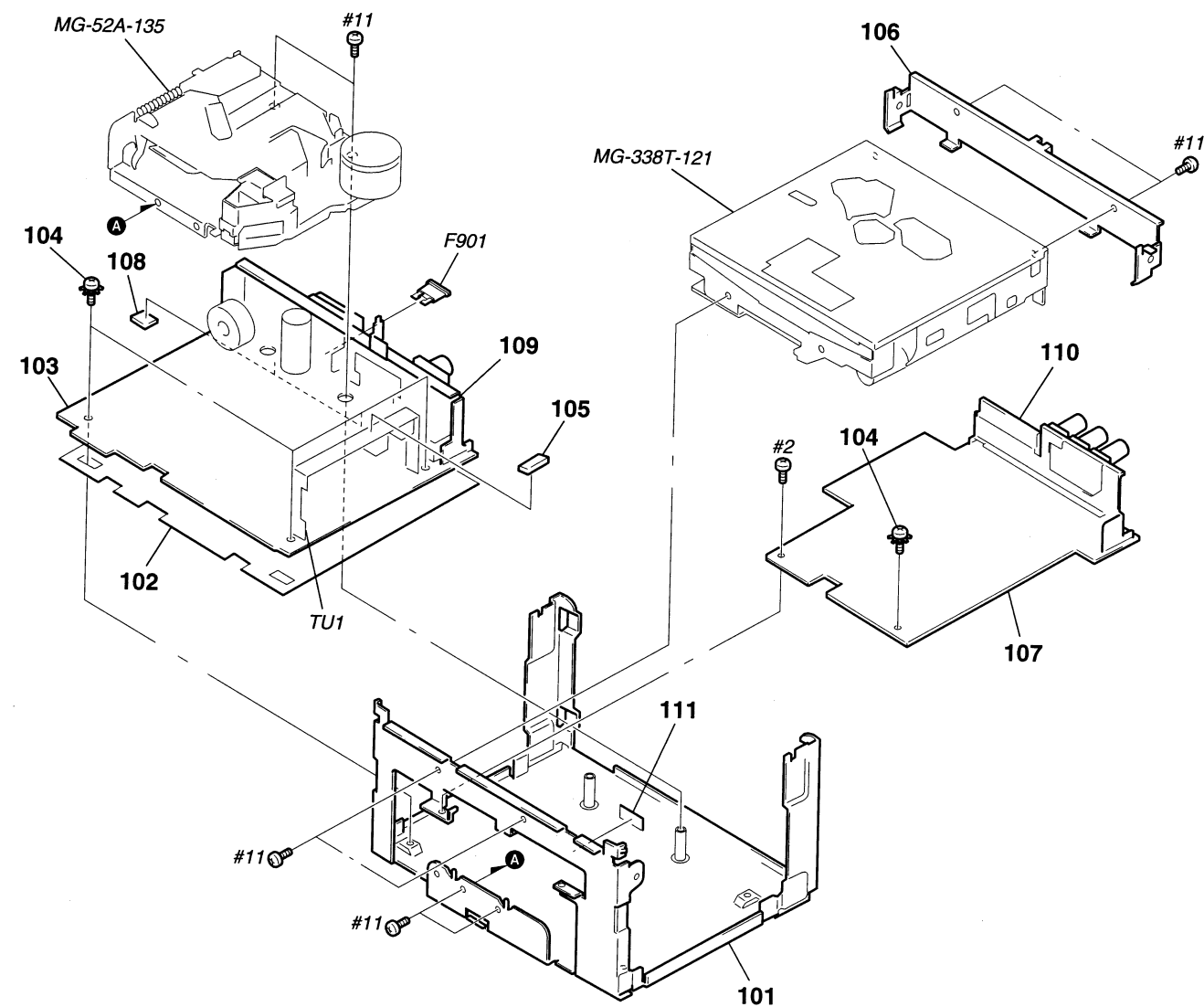
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 1	3-012-507-01	COVER		* 4	3-012-516-01	SHEET (DD), INSULATING	
2	1-776-207-11	CORD (WITH CONNECTOR) (POWER)		* 5	A-3313-136-A	DC/DC CONVERTER BOARD, COMPLETE	
* 3	3-012-513-01	CASE (DD)		* 6	3-012-508-31	HEAT SINK	

7-2. FRONT PANEL SECTION



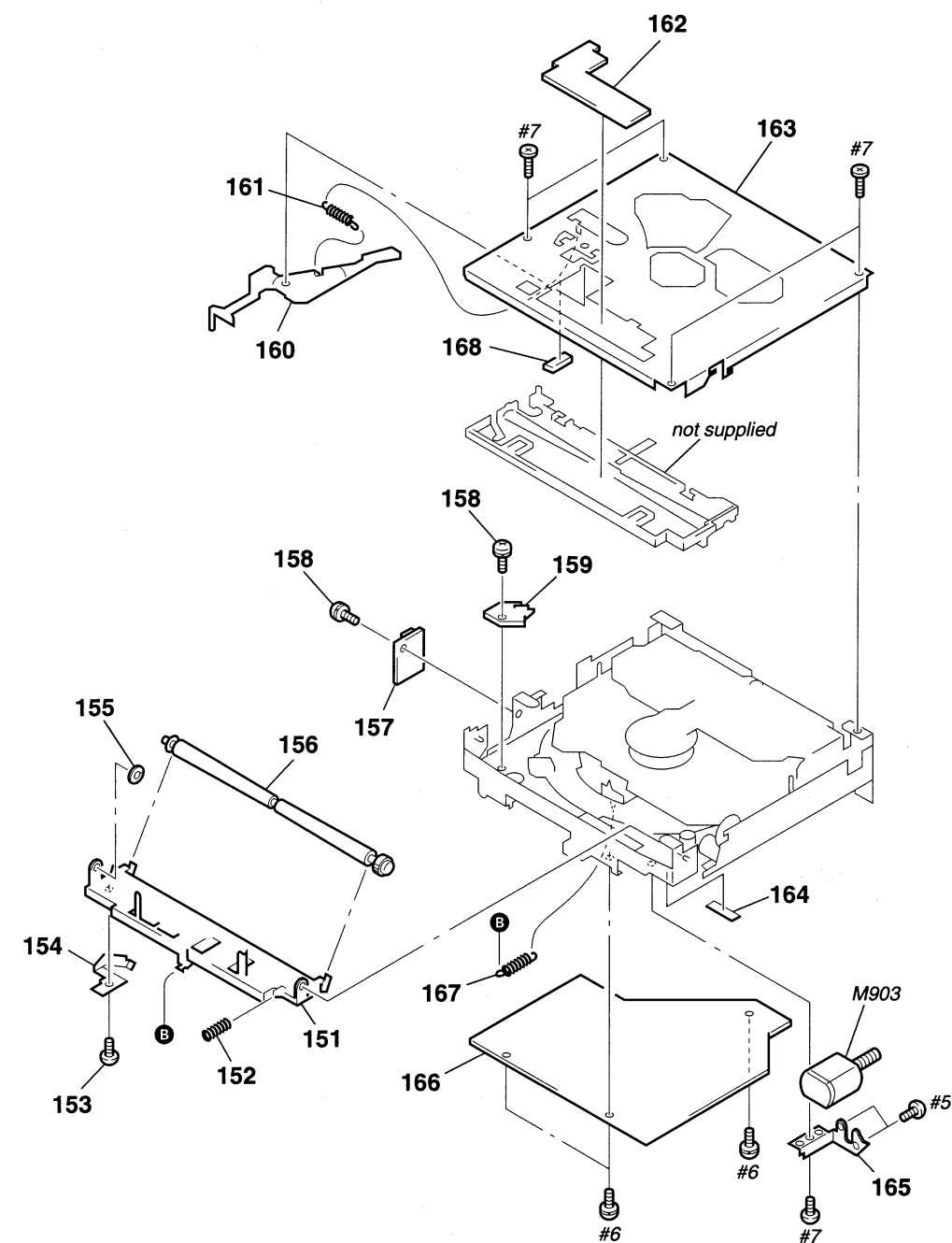
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-012-481-11	PLATE, TRANSPARENT		63	3-012-484-01	BUTTON (CD EJECT)	
52	3-012-496-01	SHEET, INDICATION		64	3-012-488-01	BUTTON (10 KEY)	
53	3-736-833-11	EMBLEM (NO.3), SONY		65	3-012-491-01	BUTTON (LIST)	
54	3-012-487-11	BUTTON (TUNE)		66	3-012-521-11	BUTTON (OFF)	
55	3-012-486-11	BUTTON (TAPE)		67	X-3374-759-1	FRONT ASSY	
56	3-012-485-11	BUTTON (CD)		68	3-012-490-11	BUTTON (AMS)	
57	3-017-610-02	SHEET, ADHESIVE		69	3-015-165-01	SPACER	
58	3-012-520-11	BUTTON (TV)		70	2-127-723-01	SPRING (KNOB)	
59	3-012-492-01	BUTTON (EQ)		71	X-3374-052-1	KNOB (VOL) ASSY	
* 60	A-3313-376-A	CONTROL BOARD, COMPLETE		72	3-015-163-01	SHEET (FL), INSULATING	
61	3-014-207-01	SPRING (CASSETTE LID)		73	3-434-219-11	CUSHION (B)	
62	3-012-483-01	DOOR, CASSETTE		FL701	1-517-657-11	INDICATOR TUBE, FLUORESCENT	

7-3. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	X-3373-616-1	CHASSIS ASSY		108	3-533-310-11	CUSHION, CASSETTE LID	
* 102	3-012-514-01	SHEET, INSULATING		* 109	3-012-509-01	BRACKET (1F)	
* 103	A-3313-372-A	MAIN BOARD, COMPLETE		* 110	3-012-510-01	BRACKET (2F)	
104	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT		* 111	3-320-882-01	SHEET, DIRECTION	
105	3-322-044-01	SPACER, RUBBER		F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
* 106	3-012-512-01	BRACKET (CD)		TU1	A-3282-029-A	TUNER UNIT (TUX-006/2(E))	
* 107	A-3313-374-A	CD BOARD, COMPLETE					

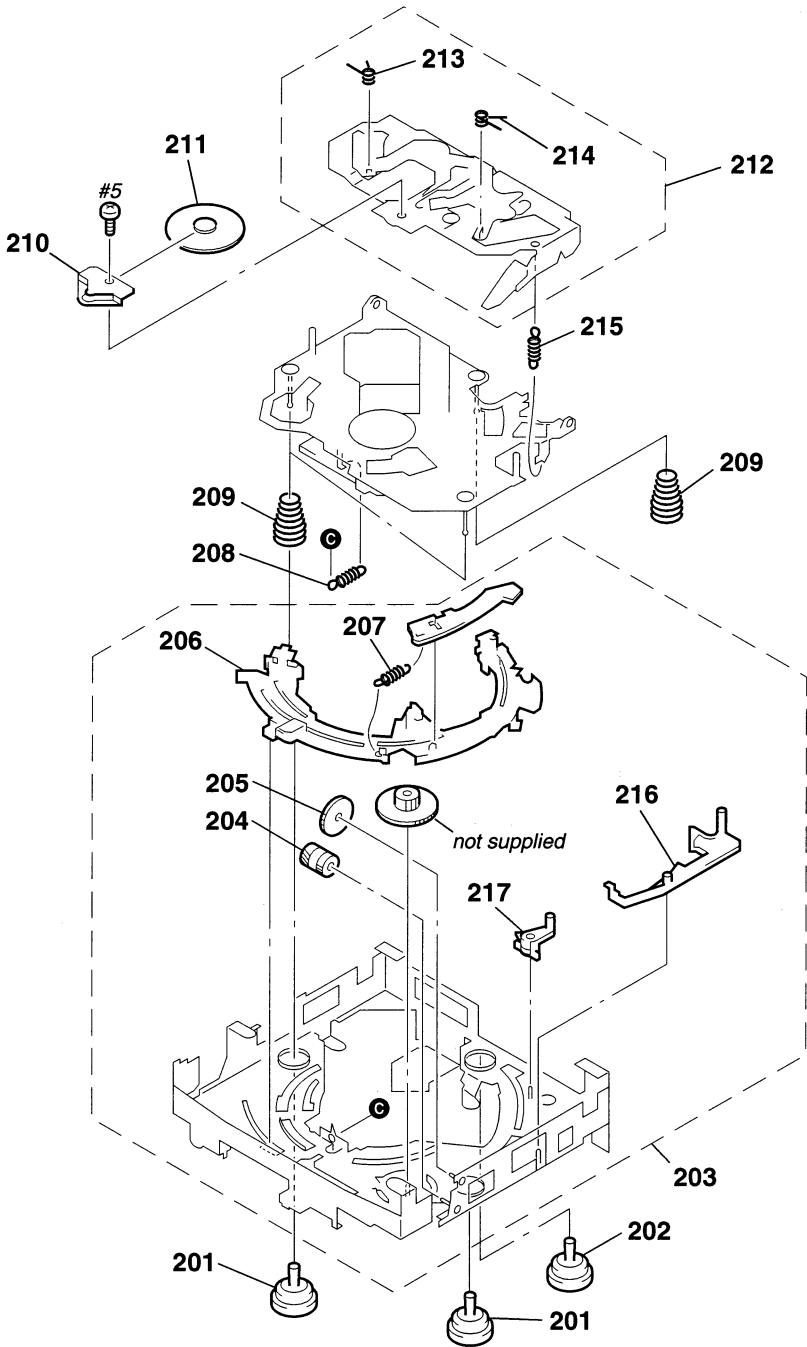
7-4. CD MECHANISM SECTION (1)
(MG-338T-121)



Ref. No.	Part No.	Description	Remark
151	3-935-846-01	ARM (ROLLER)	
152	3-937-562-01	SPRING (RA-C), COMPRESSION	
153	3-909-607-01	SCREW	
154	3-935-849-01	LEVER (IN SW)	
155	3-321-813-01	WASHER, COTTER POLYETHYLENE	
156	A-3301-204-A	ROLLER ASSY	
* 157	1-660-798-11	IN SW BOARD	
158	3-338-737-01	SCREW (2X3), + PS	
* 159	1-659-837-11	LOAD SW BOARD	
160	3-935-843-01	LEVER (RELEASE T)	

Ref. No.	Part No.	Description	Remark
161	3-906-924-01	SPRING, TENSION	
* 162	1-660-797-11	SENSOR BOARD	
* 163	3-935-829-06	CHASSIS (T)	
* 164	3-939-139-01	SPACER	
* 165	3-007-530-01	BRACKET (MOTOR)	
* 166	A-3309-872-A	SERVO BOARD, COMPLETE	
167	3-937-561-01	SPRING (RA-E), TENSION	
* 168	3-016-412-01	SPACER (G)	
M903	A-3291-676-A	MOTOR SUB ASSY, LOADING	

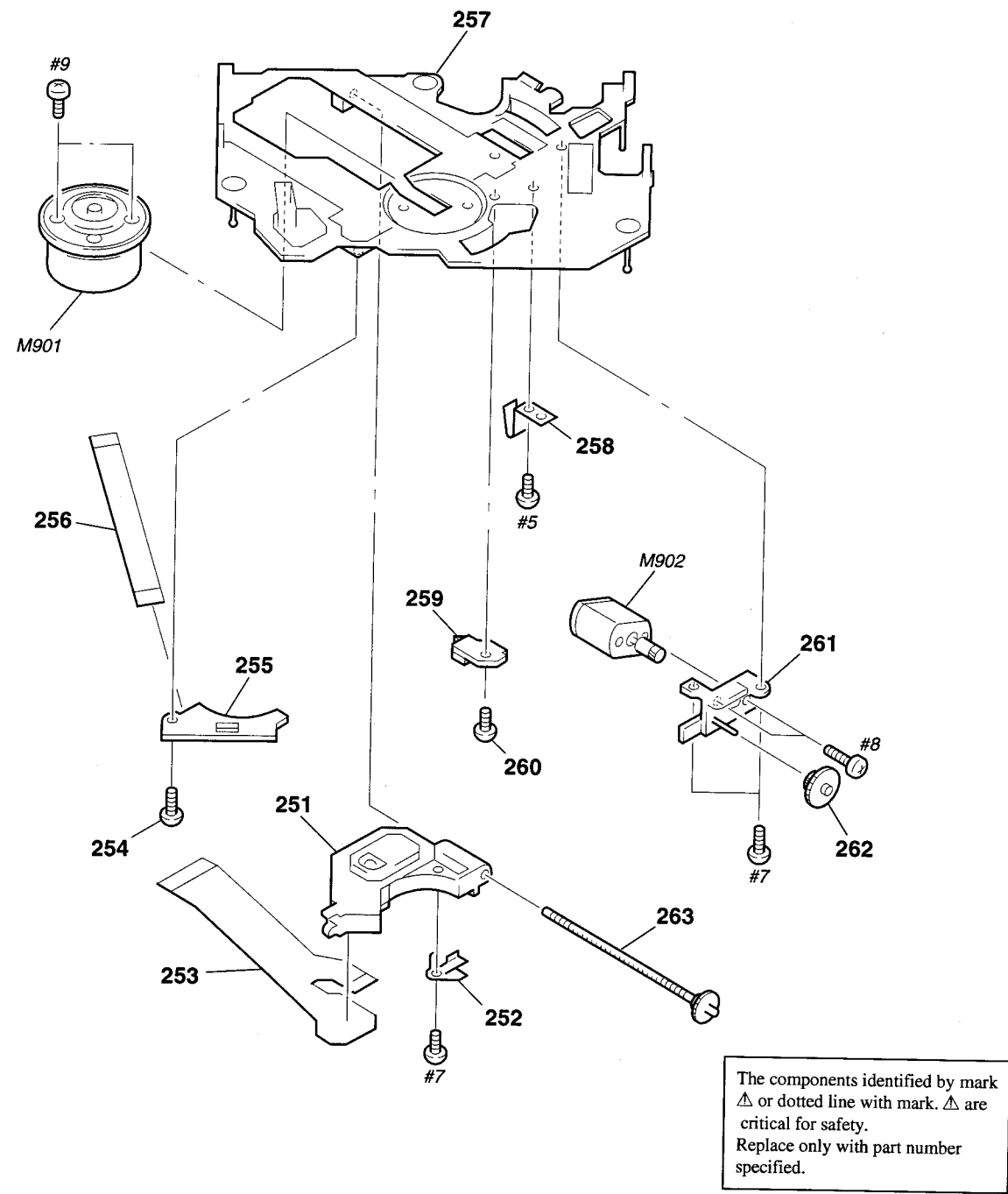
7-5. CD MECHANISM SECTION (2)
(MG-338T-121)



Ref. No.	Part No.	Description	Remark
201	3-931-897-41	DAMPER (T)	
202	3-931-897-31	DAMPER (T)	
203	A-3277-565-A	CHASSIS (M) ASSY	
204	3-007-537-01	WHEEL (U), WORM	
205	3-931-882-02	GEAR (MDL)	
206	3-935-844-01	RING, LOADING	
207	3-931-883-01	SPRING (TR), TENSION	
208	3-931-914-01	SPRING (ANGLE), TENSION	
209	3-931-898-11	SPRING (FL), COMPRESSION	

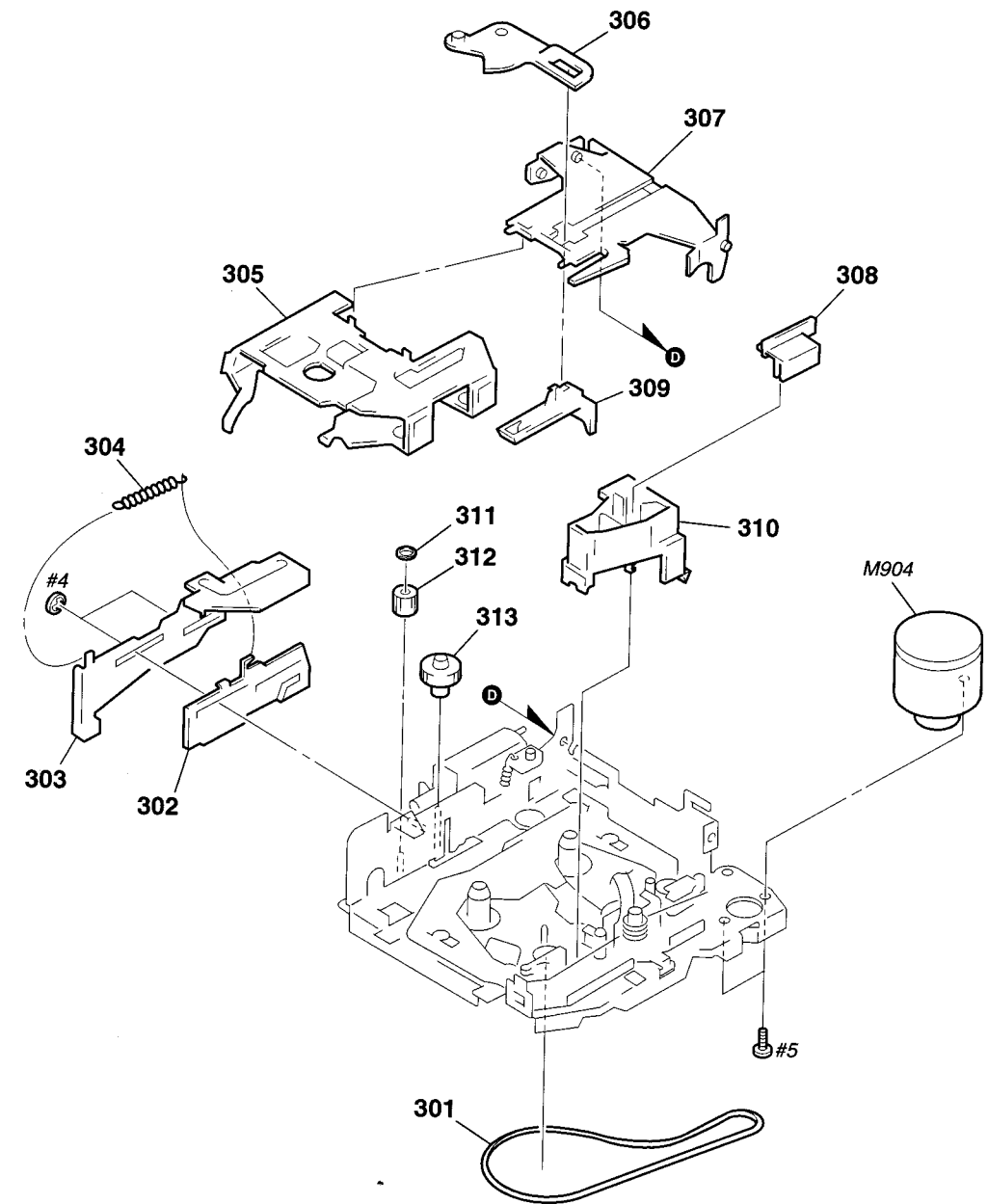
Ref. No.	Part No.	Description	Remark
210	3-931-894-01	BRACKET (CP)	
* 211	3-913-404-11	RETAINER (DISC)	
212	X-3372-203-1	ARM ASSY, CHUCKING	
213	3-936-472-01	SPRING (LEFT), TORSION	
214	3-906-928-01	SPRING (RIGHT), TORSION	
215	3-931-895-11	SPRING (CH), TENSION	
216	3-935-828-01	LEVER (D)	
217	3-931-881-01	LEVER (LOCK)	

7-6. CD MECHANISM SECTION (3)
(MG-338T-121)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Δ 251	8-848-402-02	PICK-UP, OPTICAL KSS-520A/J2NP		* 259	1-659-835-12	LIMIT SW BOARD	
252	3-931-834-01	SPRING (FEED), PLATE		260	3-338-737-01	SCREW (2X3), + PS	
253	1-659-881-11	PICK-UP FLEXIBLE BOARD		261	X-3371-504-1	BASE (DRIVING) ASSY	
254	3-909-607-01	SCREW		262	3-931-832-01	GEAR (SL MIDWAY)	
* 255	1-659-834-11	SUB BOARD		263	A-3291-669-A	SHAFT (FEED) ASSY	
256	1-659-880-11	MOTOR FLEXIBLE BOARD		M901	X-3371-664-2	MOTOR ASSY (SPINDLE)	
257	X-3372-205-2	CHASSIS (OP) (O/S) ASSY		M902	A-3291-674-A	MOTOR ASSY, SLED	
258	3-931-829-01	SPRING (SL), PLATE					

7-7. TAPE MECHANISM SECTION (1)
(MG-52A-135)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	3-017-302-01	BELT (25)		* 308	3-012-502-01	GUIDE	
* 302	3-928-673-01	LEVER (LDG-A)		309	3-933-346-01	CATCHER	
303	3-928-674-01	LEVER (LDG-B)		310	3-933-344-01	GUIDE (C)	
304	3-933-341-01	SPRING (LEVER LDG), TENSION		311	3-341-753-11	WASHER, POLYETHYLENE	
305	3-928-671-01	HOUSING		312	3-933-335-01	GEAR (LDG-FT)	
* 306	3-933-347-01	ARM (SUCTION)		313	3-928-667-01	GEAR (LDG-A)	
307	3-933-340-01	HANGER		M904	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

SECTION 8

ELECTRICAL PARTS LIST

The components identified by mark Δ or dotted line with mark. Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.



- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, $u : \mu$, for example:
 $uA.. : \mu A.. \quad uPA.. : \mu PA..$
 $uPB.. : \mu PB.. \quad uPC.. : \mu PC.. \quad uPD.. : \mu PD..$
- CAPACITORS
 $uF : \mu F$
- COILS
 $uH : \mu H$

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
*	A-3313-374-A	CD BOARD, COMPLETE *****					C442	1-124-721-11	ELECT	10uF	20%	50V	
							C443	1-124-721-11	ELECT	10uF	20%	50V	
							C445	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
*	3-012-510-01	BRACKET (2F)					C446	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
		< CAPACITOR >					C447	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C401	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V		C448	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C402	1-104-955-11	ELECT	100uF	20%	10V		C449	1-104-945-11	ELECT	4.7uF	20%	35V	
C403	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V		C451	1-104-955-11	ELECT	100uF	20%	10V	
C404	1-104-955-11	ELECT	100uF	20%	10V		C452	1-104-551-11	FILM CHIP	0.01uF	5%	16V	
C405	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V		C453	1-104-551-11	FILM CHIP	0.01uF	5%	16V	
C406	1-163-243-11	CERAMIC CHIP	47PF	5%	50V		C454	1-104-955-11	ELECT	100uF	20%	10V	
C407	1-163-099-00	CERAMIC CHIP	18PF	5%	50V		C455	1-104-943-11	ELECT	2.2uF	20%	50V	
C408	1-164-315-11	CERAMIC CHIP	470PF	5%	50V		C456	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C409	1-164-315-11	CERAMIC CHIP	470PF	5%	50V		C457	1-104-551-11	FILM CHIP	0.01uF	5%	16V	
C410	1-163-235-11	CERAMIC CHIP	22PF	5%	50V		C458	1-104-955-11	ELECT	100uF	20%	10V	
C411	1-104-541-11	FILM CHIP	0.0015uF	5%	50V		C460	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C412	1-104-952-11	ELECT	22uF	20%	16V		C461	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C413	1-115-663-61	ELECT	1uF	20%	50V		C463	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C414	1-104-945-11	ELECT	4.7uF	20%	35V		C465	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C415	1-104-952-11	ELECT	22uF	20%	16V		C466	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C416	1-104-952-11	ELECT	22uF	20%	16V		C800	1-124-701-11	ELECT	470uF	20%	25V	
C417	1-115-656-11	ELECT	22uF	20%	35V		C801	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V	
C418	1-115-651-11	ELECT	100uF	20%	16V		C802	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C419	1-104-541-11	FILM CHIP	0.0015uF	5%	50V		C803	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C421	1-104-541-11	FILM CHIP	0.0015uF	5%	50V		C805	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C422	1-104-952-11	ELECT	22uF	20%	16V		C806	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C423	1-115-663-61	ELECT	1uF	20%	50V		C807	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
C424	1-104-945-11	ELECT	4.7uF	20%	35V		C809	1-104-945-11	ELECT	4.7uF	20%	35V	
C425	1-104-952-11	ELECT	22uF	20%	16V		C810	1-126-934-11	ELECT	220uF	20%	16V	
C426	1-104-952-11	ELECT	22uF	20%	16V		C821	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C427	1-115-656-11	ELECT	22uF	20%	35V		C822	1-126-157-11	ELECT	10uF	20%	16V	
C428	1-115-651-11	ELECT	100uF	20%	16V		C823	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C429	1-104-541-11	FILM CHIP	0.0015uF	5%	50V		C824	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C430	1-115-650-11	ELECT	47uF	20%	16V		C825	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C431	1-115-667-11	ELECT	10uF	20%	50V		C826	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C432	1-124-721-11	ELECT	10uF	20%	50V		C827	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
C433	1-124-721-11	ELECT	10uF	20%	50V		C851	1-115-656-11	ELECT	22uF	20%	35V	
C435	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V		C852	1-115-667-11	ELECT	10uF	20%	50V	
C436	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		C853	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C437	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		C854	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C438	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		C856	1-124-589-11	ELECT	47uF	20%	16V	
C439	1-104-945-11	ELECT	4.7uF	20%	35V		C857	1-104-943-11	ELECT	2.2uF	20%	50V	
C440	1-115-650-11	ELECT	47uF	20%	16V		C858	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C441	1-115-667-11	ELECT	10uF	20%	50V		C859	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
						C860	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
* CN401	1-564-728-11	PIN, CONNECTOR (SMALL TYPE) 12P	
CN801	1-770-409-11	CONNECTOR, BOARD TO BOARD 16P	
CN802	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P	
* CN803	1-506-999-11	PIN, CONNECTOR (PC BOARD) 3P	
* CN804	1-566-002-11	PIN, CONNECTOR (PC BOARD) 5P	
CN805	1-564-729-11	PIN, CONNECTOR (SMALL TYPE) 13P	
< DIODE >			
D402	8-719-422-12	DIODE MA8039	
D403	8-719-158-15	DIODE RD5.6S-B	
D404	8-719-404-49	DIODE MA111	
D412	8-719-422-12	DIODE MA8039	
D413	8-719-422-12	DIODE MA8039	
D414	8-719-158-15	DIODE RD5.6S-B	
D422	8-719-422-12	DIODE MA8039	
D423	8-719-422-12	DIODE MA8039	
D424	8-719-158-15	DIODE RD5.6S-B	
D431	8-719-977-22	DIODE DTZ9.1	
D801	8-719-404-49	DIODE MA111	
D802	8-719-404-49	DIODE MA111	
D803	8-719-059-51	DIODE MA3J142E0LSO	
D851	8-719-977-22	DIODE DTZ9.1	
D852	8-719-158-15	DIODE RD5.6S-B	
D853	8-719-056-88	DIODE UDZ-TE-17-11B	
D857	8-719-404-49	DIODE MA111	
D858	8-719-059-51	DIODE MA3J142E0LSO	
D859	8-719-059-51	DIODE MA3J142E0LSO	
< IC LINK >			
F851	1-532-637-00	LINK, IC (ICP-N25) 1A	
< FERRITE BEAD >			
FB401	1-414-233-21	INDUCTOR 0uH	
FB402	1-414-233-21	INDUCTOR 0uH	
FB404	1-414-233-21	INDUCTOR 0uH	
FB801	1-414-233-21	INDUCTOR 0uH	
FB802	1-414-233-21	INDUCTOR 0uH	
FB803	1-414-233-21	INDUCTOR 0uH	
FB804	1-414-233-21	INDUCTOR 0uH	
FB805	1-414-233-21	INDUCTOR 0uH	
< IC >			
IC401	8-759-464-81	IC PCM1717E-ST2	
IC402	8-752-067-31	IC CXA1846M-T6	
IC403	8-759-444-50	IC TDA8574(T)	
IC404	8-759-385-17	IC NJM4580E(TE2)	
IC801	8-759-466-20	IC uPD78058GC-936-3B9	
IC802	8-759-253-82	IC AT24C16N-10SI-TR	
IC803	8-759-428-57	IC LC89170M-TLM	
IC804	8-759-392-22	IC BA3834F	

Ref. No.	Part No.	Description	Remark
< JACK >			
J401	1-774-700-11	JACK, PIN 6P (SUB OUT, LINE OUT REAR/FRONT)	
< TRANSISTOR >			
Q401	8-729-106-60	TRANSISTOR 2SB1115A	
Q402	8-729-016-11	TRANSISTOR 2SD1507M	
Q403	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q404	8-729-808-02	TRANSISTOR 2SD1622-T-TD	
Q405	8-729-424-08	TRANSISTOR UN2111	
Q411	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q412	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q413	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q414	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q421	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q422	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q423	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q424	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q801	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q802	8-729-015-76	TRANSISTOR UN5211	
Q803	8-729-429-92	TRANSISTOR XN1211	
Q804	8-729-015-76	TRANSISTOR UN5211	
Q805	8-729-424-08	TRANSISTOR UN2111	
Q806	8-729-421-22	TRANSISTOR UN2211	
Q811	8-729-216-22	TRANSISTOR 2SA1162-G	
Q812	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q851	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q852	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q853	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q854	8-729-424-08	TRANSISTOR UN2111	
Q855	8-729-016-11	TRANSISTOR 2SD1507M	
Q856	8-729-424-08	TRANSISTOR UN2111	
Q857	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q858	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q859	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q860	8-729-424-08	TRANSISTOR UN2111	
Q861	8-729-041-79	TRANSISTOR 2SB1443TV2-Q	
Q864	8-729-106-60	TRANSISTOR 2SB1115A	
Q865	8-729-015-76	TRANSISTOR UN5211	
Q866	8-729-424-52	TRANSISTOR UN211F-TX	
< RESISTOR >			
R401	1-216-037-00	METAL CHIP 330 5% 1/10W	
R402	1-216-815-11	METAL CHIP 330 5% 1/16W	
R404	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R405	1-216-206-00	RES, CHIP 2.2K (3216)	
R406	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R407	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R408	1-216-049-11	RES, CHIP 1.0K (2012)	
R409	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R411	1-208-486-61	RES, CHIP 1.0K	
R412	1-208-510-61	RES, CHIP 10K	

Ref. No.	Part No.	Description	Remark
R413	1-216-230-00	RES, CHIP	22K
R414	1-208-486-61	RES, CHIP	1.0K
R415	1-208-449-61	RES, CHIP	3.3K
R416	1-216-659-11	METAL CHIP	2.2K
R417	1-216-182-00	RES, CHIP	220
R418	1-216-230-00	RES, CHIP	22K
R419	1-216-182-00	RES, CHIP	220
R421	1-208-486-61	RES, CHIP	1.0K
R422	1-208-510-61	RES, CHIP	10K
R423	1-216-230-00	RES, CHIP	22K
R424	1-208-486-61	RES, CHIP	1.0K
R425	1-208-449-61	RES, CHIP	3.3K
R426	1-216-659-11	METAL CHIP	2.2K
R427	1-216-182-00	RES, CHIP	220
R428	1-216-230-00	RES, CHIP	22K
R429	1-216-182-00	RES, CHIP	220
R430	1-216-230-00	RES, CHIP	22K
R431	1-216-182-00	RES, CHIP	220
R432	1-216-230-00	RES, CHIP	22K
R433	1-216-089-00	RES, CHIP	47K
R440	1-216-230-00	RES, CHIP	22K
R441	1-216-182-00	RES, CHIP	220
R442	1-216-230-00	RES, CHIP	22K
R443	1-216-089-00	RES, CHIP	47K
R801	1-216-821-11	METAL CHIP	1K
R802	1-216-821-11	METAL CHIP	1K
R803	1-216-841-11	METAL CHIP	47K
R804	1-216-845-11	METAL CHIP	100K
R805	1-216-049-11	RES, CHIP	1.0K
R806	1-216-845-11	METAL CHIP	100K
R807	1-216-841-11	METAL CHIP	47K
R808	1-216-089-00	RES, CHIP	47K
R809	1-216-845-11	METAL CHIP	100K
R810	1-216-825-11	METAL CHIP	2.2K
R811	1-216-097-00	RES, CHIP	100K
R812	1-216-049-11	RES, CHIP	1.0K
R821	1-216-041-00	METAL CHIP	470
R822	1-216-845-11	METAL CHIP	100K
R823	1-216-821-11	METAL CHIP	1K
R824	1-216-821-11	METAL CHIP	1K
R827	1-216-699-11	METAL CHIP	100K
R828	1-208-449-61	RES, CHIP	3.3K
R831	1-216-049-11	RES, CHIP	1.0K
R832	1-216-037-00	METAL CHIP	330
R833	1-216-049-11	RES, CHIP	1.0K
R834	1-216-049-11	RES, CHIP	1.0K
R835	1-216-049-11	RES, CHIP	1.0K
R836	1-216-049-11	RES, CHIP	1.0K
R838	1-216-049-11	RES, CHIP	1.0K
R840	1-216-049-11	RES, CHIP	1.0K
R841	1-216-049-11	RES, CHIP	1.0K
R843	1-216-049-11	RES, CHIP	1.0K
R851	1-216-134-00	METAL CHIP	2.2
R852	1-216-134-00	METAL CHIP	2.2
R853	1-216-049-11	RES, CHIP	1.0K
R854	1-216-049-11	RES, CHIP	1.0K
R855	1-216-134-00	METAL CHIP	2.2
R856	1-216-134-00	METAL CHIP	2.2
R857	1-216-049-11	RES, CHIP	1.0K
R858	1-216-073-00	METAL CHIP	10K
R859	1-216-073-00	METAL CHIP	10K
R860	1-216-206-00	RES, CHIP	2.2K
R861	1-216-017-00	RES, CHIP	47
R862	1-216-206-00	RES, CHIP	2.2K
R863	1-216-134-00	METAL CHIP	2.2
R864	1-216-134-00	METAL CHIP	2.2
R865	1-216-134-00	METAL CHIP	2.2
R866	1-216-134-00	METAL CHIP	2.2
R867	1-216-097-00	RES, CHIP	100K
R868	1-216-206-00	RES, CHIP	2.2K
< NETWORK RESISTOR >			
RB801	1-233-412-11	RES, CHIP NETWORK	1.0K
RB802	1-233-412-11	RES, CHIP NETWORK	1.0K
RB803	1-233-412-11	RES, CHIP NETWORK	1.0K
RB804	1-233-412-11	RES, CHIP NETWORK	1.0K
RB805	1-233-810-21	RES, CHIP NETWORK	100K
RB811	1-233-412-11	RES, CHIP NETWORK	1.0K
< VIBRATOR >			
X401	1-760-839-21	VIBRATOR, CRYSTAL (16.9MHz)	
X801	1-579-233-11	VIBRATOR, CERAMIC (5MHz)	

* A-3313-376-A	CONTROL BOARD, COMPLETE		

< CAPACITOR >			
C701	1-163-037-11	CERAMIC CHIP	0.022uF
C702	1-163-104-00	CERAMIC CHIP	30PF
C703	1-163-235-11	CERAMIC CHIP	22PF
C704	1-164-004-11	CERAMIC CHIP	0.1uF
C705	1-163-037-11	CERAMIC CHIP	0.022uF
C706	1-163-251-11	CERAMIC CHIP	100PF
C707	1-163-251-11	CERAMIC CHIP	100PF
C708	1-164-004-11	CERAMIC CHIP	0.1uF
C709	1-164-004-11	CERAMIC CHIP	0.1uF
< CONNECTOR >			
CN701	1-774-276-21	SOCKET, CONNECTOR 16P	
CN702	1-770-983-11	SOCKET, CONNECTOR 8P	
< DIODE >			
D701	8-719-977-03	DIODE DTZ5.6B	
D702	8-719-988-62	DIODE 1SS355	
D703	8-719-988-62	DIODE 1SS355	

CONTROL

Ref. No.	Part No.	Description	Remark
D704	8-719-988-62	DIODE 1SS355	
D705	8-719-988-62	DIODE 1SS355	
D706	8-719-988-62	DIODE 1SS355	
D707	8-719-988-62	DIODE 1SS355	
D708	8-719-988-62	DIODE 1SS355	
D709	8-719-988-62	DIODE 1SS355	
D710	8-719-052-72	LED CL-220HR-C (REP)	
D711	8-719-052-72	LED CL-220HR-C (SHUF)	
D712	8-719-052-72	LED CL-220HR-C (ENTER)	
D713	8-719-052-72	LED CL-220HR-C (◀)	
D714	8-719-052-72	LED CL-220HR-C (SETUP)	
D715	8-719-052-72	LED CL-220HR-C (P MODE)	
D716	8-719-052-72	LED CL-220HR-C (▶)	
D717	8-719-988-62	DIODE 1SS355	
D718	8-719-058-24	DIODE RB501V-40TE-17	
D719	8-719-422-43	DIODE MA8051-H	
D727	8-719-062-24	LED CL-155Y/G-D-T (CD WINDOW)	
D728	8-719-062-24	LED CL-155Y/G-D-T (TAPE WINDOW)	
D729	8-719-062-24	LED CL-155Y/G-D-T (CD/MD)	
D730	8-719-062-24	LED CL-155Y/G-D-T (TUNER)	
D731	8-719-062-24	LED CL-155Y/G-D-T (TAPE ◀▶)	
D732	8-719-064-14	LED CL-170SB-X-T	
D733	8-719-064-14	LED CL-170SB-X-T	
D734	8-719-064-14	LED CL-170SB-X-T	
D735	8-719-064-14	LED CL-170SB-X-T	
D736	8-719-062-24	LED CL-155Y/G-D-T (▲ (CD))	
< ROTARY ENCODER >			
EN700	1-475-216-11	ENCODER, ROTARY	
< FLUORESCENT INDICATOR >			
FL701	1-517-657-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC701	8-759-399-58	IC LC75725E	
IC702	8-759-456-76	IC LC75720E	
IC703	8-759-267-27	IC BU2092F	
< JUMPER RESISTOR >			
JC701	1-216-295-00	SHORT 0	
< SWITCH >			
LSW701	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (OFF)	
LSW702	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (▲ (TAPE))	
LSW704	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (TV)	
LSW705	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (10/ ▶)	
LSW706	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (9/P MODE)	
LSW707	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (8/SETUP)	
LSW708	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (7/ ◀)	
LSW709	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (6/ENTER)	
LSW710	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (5/SHUF)	
LSW711	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (4/REP)	

Ref. No.	Part No.	Description	Remark
LSW712	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (3)	
LSW713	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (2)	
LSW714	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (1)	
LSW719	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (SHIFT)	
LSW720	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (+ ▶▶▶▶ (SEEK/AMS))	
LSW721	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (- ◀◀◀◀ (SEEK/AMS))	
LSW722	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (SA)	
LSW723	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (SOUND)	
LSW724	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (LIST)	
LSW725	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (SCRL)	
LSW726	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (EQ)	
LSW727	1-771-170-11	SWITCH, KEYBOARD (WITH LED) (DSPL)	
< IC >			
PH701	8-749-012-17	IC RS-140-T	
< TRANSISTOR >			
Q701	8-729-271-31	TRANSISTOR 2SC2713-G	
Q702	8-729-271-31	TRANSISTOR 2SC2713-G	
Q703	8-729-271-31	TRANSISTOR 2SC2713-G	
Q704	8-729-271-31	TRANSISTOR 2SC2713-G	
Q705	8-729-271-31	TRANSISTOR 2SC2713-G	
Q706	8-729-271-31	TRANSISTOR 2SC2713-G	
Q707	8-729-271-31	TRANSISTOR 2SC2713-G	
Q708	8-729-271-31	TRANSISTOR 2SC2713-G	
Q710	8-729-904-66	TRANSISTOR DTD113EK	
Q711	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q712	8-729-904-66	TRANSISTOR DTD113EK	
< RESISTOR >			
R701	1-216-041-00	METAL CHIP 470 5% 1/10W	
R702	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R703	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R704	1-216-029-00	METAL CHIP 150 5% 1/10W	
R705	1-216-029-00	METAL CHIP 150 5% 1/10W	
R706	1-216-029-00	METAL CHIP 150 5% 1/10W	
R707	1-216-029-00	METAL CHIP 150 5% 1/10W	
R708	1-216-029-00	METAL CHIP 150 5% 1/10W	
R709	1-216-029-00	METAL CHIP 150 5% 1/10W	
R710	1-216-029-00	METAL CHIP 150 5% 1/10W	
R711	1-216-029-00	METAL CHIP 150 5% 1/10W	
R712	1-216-045-00	METAL CHIP 680 5% 1/10W	
R713	1-216-045-00	METAL CHIP 680 5% 1/10W	
R714	1-216-045-00	METAL CHIP 680 5% 1/10W	
R715	1-216-045-00	METAL CHIP 680 5% 1/10W	
R716	1-216-045-00	METAL CHIP 680 5% 1/10W	
R717	1-216-045-00	METAL CHIP 680 5% 1/10W	
R718	1-216-045-00	METAL CHIP 680 5% 1/10W	
R719	1-216-045-00	METAL CHIP 680 5% 1/10W	
R721	1-216-045-00	METAL CHIP 680 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R722	1-216-045-00	METAL CHIP 680 5% 1/10W	
R723	1-216-045-00	METAL CHIP 680 5% 1/10W	
R724	1-216-045-00	METAL CHIP 680 5% 1/10W	
R725	1-216-045-00	METAL CHIP 680 5% 1/10W	
R726	1-216-045-00	METAL CHIP 680 5% 1/10W	
R727	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R728	1-216-041-00	METAL CHIP 470 5% 1/10W	
R729	1-216-025-00	RES, CHIP 100 (2012)	
R730	1-216-031-00	METAL CHIP 180 5% 1/10W	
R731	1-216-029-00	METAL CHIP 150 5% 1/10W	
R733	1-216-031-00	METAL CHIP 180 5% 1/10W	
R734	1-216-029-00	METAL CHIP 150 5% 1/10W	
R735	1-216-029-00	METAL CHIP 150 5% 1/10W	
R736	1-216-031-00	METAL CHIP 180 5% 1/10W	
R737	1-216-025-00	RES, CHIP 100 (2012)	
R738	1-216-024-00	RES, CHIP 91 (2012)	
R740	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R741	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R742	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R743	1-208-437-61	RES, CHIP 1.0K	
R744	1-208-441-61	RES, CHIP 1.5K	
R745	1-208-441-61	RES, CHIP 1.5K	
R746	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R747	1-208-449-61	RES, CHIP 3.3K	
R748	1-208-453-61	RES, CHIP 4.7K	
R749	1-216-671-11	METAL CHIP 6.8K 0.5% 1/10W	
R750	1-208-462-61	RES, CHIP 10K	
R751	1-208-810-11	RES, CHIP 15K	
R752	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R753	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R754	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R755	1-208-437-61	RES, CHIP 1.0K	
R756	1-208-441-61	RES, CHIP 1.5K	
R757	1-208-441-61	RES, CHIP 1.5K	
R758	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R759	1-208-449-61	RES, CHIP 3.3K	
R760	1-208-453-61	RES, CHIP 4.7K	
R761	1-216-671-11	METAL CHIP 6.8K 0.5% 1/10W	
R762	1-208-462-61	RES, CHIP 10K	
R763	1-208-810-11	RES, CHIP 15K	
R764	1-216-097-00	RES, CHIP 100K (2012)	
R765	1-216-097-00	RES, CHIP 100K (2012)	
R766	1-216-097-00	RES, CHIP 100K (2012)	
R767	1-216-097-00	RES, CHIP 100K (2012)	
R768	1-216-097-00	RES, CHIP 100K (2012)	
R769	1-216-097-00	RES, CHIP 100K (2012)	
R770	1-216-097-00	RES, CHIP 100K (2012)	
R771	1-216-097-00	RES, CHIP 100K (2012)	
R772	1-216-017-00	RES, CHIP 47 (2012)	
R773	1-216-023-00	METAL CHIP 82 5% 1/10W	
R774	1-216-017-00	RES, CHIP 47 (2012)	
R775	1-216-023-00	METAL CHIP 82 5% 1/10W	
R776	1-216-017-00	RES, CHIP 47 (2012)	

CONTROL DC/DC CONVERTER

Ref. No.	Part No.	Description	Remark
R777	1-216-023-00	METAL CHIP 82 5% 1/10W	
R778	1-216-017-00	RES, CHIP 47 (2012)	
R779	1-216-023-00	METAL CHIP 82 5% 1/10W	
R780	1-216-017-00	RES, CHIP 47 (2012)	
R781	1-216-023-00	METAL CHIP 82 5% 1/10W	
R782	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R784	1-208-518-61	RES, CHIP 22K	
R785	1-216-168-00	RES, CHIP 56 (3216)	
R786	1-216-168-00	RES, CHIP 56 (3216)	
R787	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
< SWITCH >			
SW701	1-771-027-11	SWITCH, KEYBOARD (WITH LED) (RESET)	
SW703	1-771-027-11	SWITCH, KEYBOARD (WITH LED) (TUNER)	
SW715	1-771-027-11	SWITCH, KEYBOARD (WITH LED) (▲ (CD))	
SW716	1-771-027-11	SWITCH, KEYBOARD (WITH LED) (CD/MD)	
SW717	1-771-027-11	SWITCH, KEYBOARD (WITH LED) (TAPE ◀▶)	

* A-3313-136-A DC/DC CONVERTER BOARD, COMPLETE			

< CAPACITOR >			
C601	1-115-754-11	ELECT 120uF 20% 16V	
C602	1-164-348-11	CERAMIC CHIP 0.12uF 10% 25V	
C603	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C604	1-111-107-11	ELECT 10uF 20% 50V	
C605	1-164-717-11	CERAMIC CHIP 0.0082uF 5% 50V	
C606	1-163-143-00	CERAMIC CHIP 0.0012uF 5% 50V	
C607	1-115-730-11	ELECT 180uF 20% 10V	
C608	1-111-110-11	ELECT 39uF 20% 50V	
C609	1-127-499-00	ELECT 22uF 20% 16V	
C610	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
< CONNECTOR >			
* CN601	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P	
< DIODE >			
D601	8-719-064-13	DIODE RD12FM-T1	
D602	8-719-801-41	DIODE 1SS196	
D603	8-719-055-30	DIODE D1FS4A-TA	
D604	8-719-802-36	DIODE 1SS250	
D605	8-719-034-22	DIODE MA4039-M(QZ)	
< COIL >			
L601	1-416-280-21	COIL, CHIP 100uH	
< TRANSISTOR >			
Q601	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q602	8-729-141-18	TRANSISTOR 2SC3692	
< RESISTOR >			
R601	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R602	1-216-198-00	RES, CHIP 1.0K (3216)	

DC/DC CONVERTER

IN SW

LIMIT SW

LOAD SW

MAIN

Ref. No.	Part No.	Description	Remark		
R603	1-216-182-00	RES, CHIP	220	(3216)	
R604	1-216-208-00	RES, CHIP	2.7K	(3216)	
R605	1-216-170-00	RES, CHIP	68	(3216)	
R606	1-216-198-00	RES, CHIP	1.0K	(3216)	
R607	1-216-230-00	RES, CHIP	22K	(3216)	
R608	1-216-230-00	RES, CHIP	22K	(3216)	
< TRANSFORMER >					
T601	1-431-360-11	TRANSFORMER, DC-DC CONVERTER	*****		
*	1-660-798-11	IN SW BOARD	*****		
< SWITCH >					
SW1	1-572-688-11	SWITCH, PUSH (1 KEY) (SELF)	*****		
*	1-659-835-12	LIMIT SW BOARD	*****		
< SWITCH >					
SW3	1-572-688-11	SWITCH, PUSH (1 KEY) (LIMIT)	*****		
*	1-659-837-11	LOAD SW BOARD	*****		
< SWITCH >					
SW4	1-572-288-11	SWITCH, PUSH (DOWN)	*****		
*	A-3313-372-A	MAIN BOARD, COMPLETE	*****		
*	3-012-509-01	BRACKET (1F)			
< BUZZER >					
BZ300	1-504-920-11	BUZZER			
< CAPACITOR >					
C2	1-126-933-11	ELECT	100uF	20%	16V
C4	1-126-933-11	ELECT	100uF	20%	16V
C6	1-126-933-11	ELECT	100uF	20%	16V
C8	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C10	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C11	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C12	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C13	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C14	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C17	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C18	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C19	1-136-177-00	FILM	1uF	5%	50V
C20	1-104-683-11	MYLAR	0.0047uF	5%	50V

Ref. No.	Part No.	Description	Remark		
C21	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C22	1-126-933-11	ELECT	100uF	20%	16V
C27	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C48	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C50	1-126-791-11	ELECT	10uF	20%	35V
C51	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C52	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C53	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C59	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C100	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V
C101	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C102	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C103	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C104	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C105	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C106	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C107	1-115-662-11	ELECT	0.47uF	20%	50V
C108	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C109	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C110	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C111	1-104-945-11	ELECT	4.7uF	20%	50V
C113	1-104-951-11	ELECT	10uF	20%	16V
C114	1-115-419-11	CERAMIC CHIP	3300PF	5%	25V
C115	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C116	1-104-951-11	ELECT	10uF	20%	16V
C117	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C118	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C119	1-104-951-11	ELECT	10uF	20%	16V
C122	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C123	1-113-503-11	CERAMIC CHIP	0.0039uF	5%	25V
C124	1-115-419-11	CERAMIC CHIP	3300PF	5%	25V
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C126	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C127	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C128	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C129	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C130	1-163-018-00	CERAMIC CHIP	0.0056uF	5%	50V
C131	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C132	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C133	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C134	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C135	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C136	1-104-955-11	ELECT	100uF	20%	10V
C137	1-104-942-11	ELECT	1uF	20%	50V
C138	1-104-951-11	ELECT	10uF	20%	16V
C139	1-104-951-11	ELECT	10uF	20%	16V
C140	1-115-664-11	ELECT	2.2uF	20%	50V
C141	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C143	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C144	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C145	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C200	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V
C201	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V

Ref. No.	Part No.	Description	Remark		
C202	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C203	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C204	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C205	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C206	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C207	1-115-662-11	ELECT	0.47uF	20%	50V
C208	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C209	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C210	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C211	1-104-945-11	ELECT	4.7uF	20%	50V
C213	1-104-951-11	ELECT	10uF	20%	16V
C214	1-115-419-11	CERAMIC CHIP	3300PF	5%	25V
C215	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C216	1-104-951-11	ELECT	10uF	20%	16V
C217	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C218	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C219	1-104-951-11	ELECT	10uF	20%	16V
C222	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C223	1-113-503-11	CERAMIC CHIP	0.0039uF	5%	25V
C224	1-115-419-11	CERAMIC CHIP	3300PF	5%	25V
C225	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C226	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C227	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C228	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C229	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C230	1-163-018-00	CERAMIC CHIP	0.0056uF	5%	50V
C231	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C232	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C233	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C234	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C235	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C236	1-104-955-11	ELECT	100uF	20%	10V
C237	1-104-942-11	ELECT	1uF	20%	50V
C238	1-104-951-11	ELECT	10uF	20%	16V
C239	1-104-951-11	ELECT	10uF	20%	16V
C240	1-115-664-11	ELECT	2.2uF	20%	50V
C241	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C243	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C244	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C245	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C300	1-104-955-11	ELECT	100uF	20%	10V
C301	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C303	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C304	1-104-955-11	ELECT	100uF	20%	10V
C305	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C306	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C307	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C308	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C309	1-104-955-11	ELECT	100uF	20%	10V
C310	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C311	1-104-952-11	ELECT	22uF	20%	16V
C312	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C313	1-104-955-11	ELECT	100uF	20%	10V

MAIN

MAIN					
Ref. No.	Part No.	Description			Remark
C314	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C315	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C317	1-126-941-11	ELECT	470uF	20%	25V
C318	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C319	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C320	1-104-951-11	ELECT	10uF	20%	16V
C321	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C322	1-104-952-11	ELECT	22uF	20%	16V
C330	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C349	1-126-163-11	ELECT	4.7uF	20%	50V
C501	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C502	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C503	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C504	1-115-662-11	ELECT	0.47uF	20%	50V
C505	1-125-701-11	DOUBLE LAYERS	0.047F		5.5V
C506	1-126-153-11	ELECT	22uF	20%	6.3V
C507	1-126-163-11	ELECT	4.7uF	20%	50V
C508	1-104-951-11	ELECT	10uF	20%	16V
C509	1-104-952-11	ELECT	22uF	20%	16V
C510	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C511	1-104-951-11	ELECT	10uF	20%	16V
C512	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C513	1-104-951-11	ELECT	10uF	20%	16V
C514	1-124-229-00	ELECT	33uF	20%	10V
C515	1-124-229-00	ELECT	33uF	20%	10V
C516	1-124-242-00	ELECT	33uF	20%	25V
C517	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C518	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C521	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C522	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C525	1-104-955-11	ELECT	100uF	20%	10V
C526	1-104-951-11	ELECT	10uF	20%	16V
C527	1-104-951-11	ELECT	10uF	20%	16V
C528	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C529	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C530	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C531	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C532	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C535	1-163-059-00	CERAMIC CHIP	0.01uF	10%	50V
C538	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C600	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C601	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C901	1-111-233-11	ELECT	5600uF	20%	16V
C904	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C905	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C906	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C907	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C908	1-104-952-11	ELECT	22uF	20%	16V
C916	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C917	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C918	1-126-791-11	ELECT	10uF	20%	35V
C919	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C920	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description	Remark		
C921	1-136-165-00	FILM 0.1uF 5%	50V		
C922	1-163-275-11	CERAMIC CHIP 0.001uF 5%	50V		
C923	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V		
C924	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V		
C925	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V		
C930	1-104-951-11	ELECT 10uF 20%	16V		
C932	1-126-791-11	ELECT 10uF 20%	35V		
C933	1-126-791-11	ELECT 10uF 20%	35V		
C999	1-164-506-11	CERAMIC CHIP 4.7uF	16V		
< CONNECTOR >					
CN301	1-580-907-31	PLUG, CONNECTOR 8P (BUS CONTROL IN)			
CN302	1-779-772-11	CONNECTOR 13P			
CN303	1-778-965-21	CONNECTOR 12P			
CN304	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P			
CN305	1-566-010-11	PIN, CONNECTOR (PC BOARD) 13P			
CN306	1-770-405-11	CONNECTOR, BOARD TO BOARD 8P			
CN307	1-774-698-11	JACK, PIN 2P (BUS AUDIO IN)			
* CN308	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P			
CN900	1-774-701-11	PIN, CONNECTOR 16P			
< DISCHARGE GAP >					
CP10	1-519-504-11	GAP, DISCHARGE			
< DIODE >					
D1	8-719-040-04	DIODE MA721WK-(TX)			
D300	8-719-200-82	DIODE 11ES2			
D301	8-719-422-97	DIODE MA8091-M			
D302	8-719-404-49	DIODE MA111			
D303	8-719-404-49	DIODE MA111			
D305	8-719-977-12	DIODE DTZ6.8B			
D306	8-719-977-12	DIODE DTZ6.8B			
D307	8-719-422-64	DIODE MA8062-M			
D311	8-719-977-04	DIODE DTZ5.6C			
D404	8-719-404-49	DIODE MA111			
D500	8-719-017-91	DIODE MA8160			
D501	8-719-057-80	DIODE MA8160-M-TX			
D502	8-719-977-12	DIODE DTZ6.8B			
D503	8-719-057-80	DIODE MA8160-M-TX			
D504	8-719-057-80	DIODE MA8160-M-TX			
D505	8-719-040-04	DIODE MA721WK-(TX)			
D506	8-719-404-49	DIODE MA111			
D507	8-719-105-99	DIODE RD6.2M-B1			
D508	8-719-801-78	DIODE 1SS184			
D509	8-719-400-20	DIODE MA152WA			
D510	8-719-404-49	DIODE MA111			
D511	8-719-017-91	DIODE MA8160			
D514	8-719-422-64	DIODE MA8062-M			
D515	8-719-422-64	DIODE MA8062-M			
D516	8-719-404-49	DIODE MA111			
D518	8-719-404-49	DIODE MA111			
D519	8-719-404-49	DIODE MA111			
D520	8-719-404-49	DIODE MA111			

Ref. No.	Part No.	Description	Remark		
D901	8-719-049-38	DIODE 1N5404TU			
D902	8-719-048-98	DIODE RB160L-40TE25			
D903	8-719-048-98	DIODE RB160L-40TE25			
D904	8-719-404-49	DIODE MA111			
D905	8-719-048-98	DIODE RB160L-40TE25			
D906	8-719-048-98	DIODE RB160L-40TE25			
D907	8-719-048-98	DIODE RB160L-40TE25			
D908	8-719-048-98	DIODE RB160L-40TE25			
D909	8-719-048-98	DIODE RB160L-40TE25			
D910	8-719-048-98	DIODE RB160L-40TE25			
D911	8-719-048-98	DIODE RB160L-40TE25			
D912	8-719-048-98	DIODE RB160L-40TE25			
D914	8-719-057-80	DIODE MA8160-M-TX			
D999	8-719-404-49	DIODE MA111			
< FUSE >					
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A			
< IC >					
IC1	8-759-448-85	IC BU2624FV-E2			
IC101	8-759-385-17	IC NJM4580E(TE2)			
IC102	8-759-700-94	IC NJM5532M			
IC103	8-759-385-17	IC NJM4580E(TE2)			
IC201	8-759-385-17	IC NJM4580E(TE2)			
IC300	8-759-196-18	IC M62008FP-T1			
IC301	8-759-499-27	IC uPD78058GC-F48-3B9			
IC302	8-759-443-67	IC LC75373ED			
IC303	8-759-456-77	IC LC7527E			
IC304	8-752-079-79	IC CXA2510AQ-T4			
IC402	8-759-823-87	IC LB1638M			
IC501	8-759-347-49	IC BA3918-V2			
IC502	8-759-096-16	IC MM1175XFF			
IC901	8-759-448-48	IC HA13157			
IC902	8-759-100-96	IC uPC4558G2			
< JACK >					
J1	1-764-808-14	JACK (ANT)			
J301	1-566-822-41	JACK (REMOTE IN)			
< JUMPER RESISTOR >					
JR7	1-216-296-00	SHORT 0			
JR8	1-216-298-00	METAL CHIP 2.2	5%	1/10W	
JR501	1-216-295-00	SHORT 0			
JW1	1-216-295-00	SHORT 0			
JW2	1-216-295-00	SHORT 0			
JW3	1-216-295-00	SHORT 0			
JW7	1-216-295-00	SHORT 0			
< COIL >					
L1	1-410-509-61	INDUCTOR 10uH			
L500	1-410-509-61	INDUCTOR 10uH			
L900	1-411-669-12	COIL, CHOKE			

Ref. No.	Part No.	Description	Remark		
< TERMINAL PLATE >					
* LUG1	1-537-770-11	TERMINAL PLATE, GROUND			
* LUG2	1-537-770-11	TERMINAL PLATE, GROUND			
* LUG3	1-537-770-11	TERMINAL PLATE, GROUND			
< THERMISTOR(POSITIVE) >					
PS301	1-801-792-21	THERMISTOR, POSITIVE			
< TRANSISTOR >					
Q1	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q4	8-729-021-94	TRANSISTOR 2SK1657-T1B			
Q8	8-729-421-22	TRANSISTOR UN2211			
Q9	8-729-216-22	TRANSISTOR 2SA1162-G			
Q99	8-729-901-00	TRANSISTOR DTC124EK			
Q301	8-729-807-12	TRANSISTOR 2SD1802-S			
Q302	8-729-424-08	TRANSISTOR UN2111			
Q303	8-729-421-22	TRANSISTOR UN2211			
Q304	8-729-106-60	TRANSISTOR 2SB1115A			
Q305	8-729-421-22	TRANSISTOR UN2211			
Q500	8-729-421-22	TRANSISTOR UN2211			
Q501	8-729-216-22	TRANSISTOR 2SA1162-G			
Q502	8-729-807-12	TRANSISTOR 2SD1802-S			
Q503	8-729-807-12	TRANSISTOR 2SD1802-S			
Q504	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q505	8-729-424-08	TRANSISTOR UN2111			
Q506	8-729-424-08	TRANSISTOR UN2111			
Q507	8-729-421-22	TRANSISTOR UN2211			
Q508	8-729-421-22	TRANSISTOR UN2211			
Q509	8-729-424-08	TRANSISTOR UN2111			
Q510	8-729-021-93	TRANSISTOR UPA502T-T1			
Q511	8-729-421-22	TRANSISTOR UN2211			
Q512	8-729-421-22	TRANSISTOR UN2211			
Q513	8-729-424-08	TRANSISTOR UN2111			
Q514	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q599	8-729-901-00	TRANSISTOR DTC124EK			
< RESISTOR >					
R1	1-208-437-41	RES, CHIP 1.0K			
R5	1-208-518-41	RES, CHIP 22K			
R6	1-216-097-00	RES, CHIP 100K	(2012)		
R7	1-216-025-00	RES, CHIP 100	(2012)		
R8	1-216-037-00	METAL CHIP 330	5%	1/10W	
R9	1-208-449-41	RES, CHIP 3.3K			
R10	1-216-057-00	METAL CHIP 2.2K	5%	1/10W	
R11	1-208-449-41	RES, CHIP 3.3K			
R12	1-208-437-41	RES, CHIP 1.0K			
R13	1-208-437-41	RES, CHIP 1.0K			
R14	1-208-462-41	RES, CHIP 10K			
R15	1-208-462-41	RES, CHIP 10K			
R29	1-216-057-00	METAL CHIP 2.2K	5%	1/10W	
R50	1-216-097-00	RES, CHIP 100K	(2012)		

Ref. No.	Part No.	Description	Remark		
R58	1-216-065-00	METAL CHIP 4.7K	5%	1/10W	
R59	1-208-462-41	RES, CHIP 10K			
R60	1-208-462-41	RES, CHIP 10K			
R61	1-208-462-41	RES, CHIP 10K			
R62	1-208-462-41	RES, CHIP 10K			
R63	1-216-298-00	METAL CHIP 2.2	5%	1/10W	
R64	1-216-298-00	METAL CHIP 2.2	5%	1/10W	
R98	1-216-294-00	METAL CHIP 10M	5%	1/8W	
R99	1-216-294-00	METAL CHIP 10M	5%	1/8W	
R100	1-216-089-00	RES, CHIP 47K	(2012)		
R101	1-208-824-11	RES, CHIP 56K			
R102	1-208-550-41	RES, CHIP 470K			
R104	1-208-526-41	RES, CHIP 47K			
R105	1-216-685-11	METAL CHIP 27K	0.5%	1/10W	
R106	1-208-462-41	RES, CHIP 10K			
R107	1-208-534-61	RES, CHIP 100K			
R108	1-208-534-61	RES, CHIP 100K			
R109	1-208-760-11	RES, CHIP 120			
R110	1-218-764-11	RES, CHIP 330K			
R111	1-216-677-11	METAL CHIP 12K	0.5%	1/10W	
R112	1-208-812-11	RES, CHIP 18K			
R114	1-216-295-00	SHORT 0			
R116	1-208-803-11	RES, CHIP 7.5K			
R120	1-208-803-11	RES, CHIP 7.5K			
R121	1-208-449-41	RES, CHIP 3.3K			
R122	1-208-810-11	RES, CHIP 15K			
R123	1-208-810-11	RES, CHIP 15K			
R124	1-208-449-41	RES, CHIP 3.3K			
R125	1-208-437-41	RES, CHIP 1.0K			
R126	1-208-437-41	RES, CHIP 1.0K			
R127	1-208-437-41	RES, CHIP 1.0K			
R128	1-208-437-41	RES, CHIP 1.0K			
R129	1-208-462-41	RES, CHIP 10K			
R130	1-208-437-41	RES, CHIP 1.0K			
R131	1-208-453-41	RES, CHIP 4.7K			
R133	1-208-449-41	RES, CHIP 3.3K			
R200	1-216-089-00	RES, CHIP 47K	(2012)		
R201	1-208-824-11	RES, CHIP 56K			
R202	1-208-550-41	RES, CHIP 470K			
R204	1-208-526-41	RES, CHIP 47K			
R205	1-216-685-11	METAL CHIP 27K	0.5%	1/10W	
R206	1-208-462-41	RES, CHIP 10K			
R207	1-208-534-61	RES, CHIP 100K			
R208	1-208-534-61	RES, CHIP 100K			
R209	1-208-760-11	RES, CHIP 120			
R210	1-218-764-11	RES, CHIP 330K			
R211	1-216-677-11	METAL CHIP 12K	0.5%	1/10W	
R212	1-208-812-11	RES, CHIP 18K			
R214	1-216-295-00	SHORT 0			
R216	1-208-803-11	RES, CHIP 7.5K			
R220	1-208-803-11	RES, CHIP 7.5K			
R221	1-208-449-41	RES, CHIP 3.3K			
R222	1-208-810-11	RES, CHIP 15K			

Ref. No.	Part No.	Description	Remark
R223	1-208-810-11	RES, CHIP	15K
R224	1-208-449-41	RES, CHIP	3.3K
R225	1-208-437-41	RES, CHIP	1.0K
R226	1-208-437-41	RES, CHIP	1.0K
R227	1-208-437-41	RES, CHIP	1.0K
R228	1-208-437-41	RES, CHIP	1.0K
R229	1-208-462-41	RES, CHIP	10K
R230	1-208-437-41	RES, CHIP	1.0K
R231	1-208-453-41	RES, CHIP	4.7K
R233	1-208-449-41	RES, CHIP	3.3K
R300	1-208-550-41	RES, CHIP	470K
R301	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R302	1-208-449-41	RES, CHIP	3.3K
R303	1-208-813-11	RES, CHIP	20K
R304	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R305	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
R306	1-208-437-41	RES, CHIP	1.0K
R307	1-216-150-00	RES, CHIP	10 (3216)
R308	1-216-150-00	RES, CHIP	10 (3216)
R309	1-216-150-00	RES, CHIP	10 (3216)
R310	1-216-150-00	RES, CHIP	10 (3216)
R311	1-208-453-41	RES, CHIP	4.7K
R312	1-208-462-41	RES, CHIP	10K
R313	1-216-025-00	RES, CHIP	100 (2012)
R349	1-208-449-41	RES, CHIP	3.3K
R501	1-216-295-00	SHORT	0
R502	1-216-158-00	RES, CHIP	22 (3216)
R503	1-216-079-00	METAL CHIP	18K 5% 1/10W
R504	1-208-462-41	RES, CHIP	10K
R505	1-216-089-00	RES, CHIP	47K (2012)
R506	1-208-526-41	RES, CHIP	47K
R507	1-208-462-41	RES, CHIP	10K
R508	1-216-001-00	METAL CHIP	10 5% 1/10W
R509	1-208-462-41	RES, CHIP	10K
R510	1-208-526-41	RES, CHIP	47K
R511	1-216-025-00	RES, CHIP	100 (2012)
R512	1-216-025-00	RES, CHIP	100 (2012)
R513	1-208-462-41	RES, CHIP	10K
R514	1-216-001-00	METAL CHIP	10 5% 1/10W
R515	1-216-089-00	RES, CHIP	47K (2012)
R516	1-208-518-41	RES, CHIP	22K
R517	1-208-518-41	RES, CHIP	22K
R519	1-216-097-00	RES, CHIP	100K (2012)
R520	1-216-206-00	RES, CHIP	2.2K (3216)
R521	1-208-462-41	RES, CHIP	10K
R522	1-216-675-11	METAL CHIP	10K 0.5% 1/10W
R523	1-216-675-11	METAL CHIP	10K 0.5% 1/10W
R524	1-216-025-00	RES, CHIP	100 (2012)
R525	1-216-025-00	RES, CHIP	100 (2012)
R526	1-216-025-00	RES, CHIP	100 (2012)
R527	1-216-025-00	RES, CHIP	100 (2012)
R528	1-216-675-11	METAL CHIP	10K 0.5% 1/10W
R529	1-216-675-11	METAL CHIP	10K 0.5% 1/10W

Ref. No.	Part No.	Description	Remark
R530	1-216-097-00	RES, CHIP	100K (2012)
R531	1-216-097-00	RES, CHIP	100K (2012)
R532	1-216-097-00	RES, CHIP	100K (2012)
R533	1-216-097-00	RES, CHIP	100K (2012)
R534	1-216-037-00	METAL CHIP	330 5% 1/10W
R535	1-216-097-00	RES, CHIP	100K (2012)
R536	1-208-462-41	RES, CHIP	10K
R537	1-208-526-41	RES, CHIP	47K
R538	1-208-526-41	RES, CHIP	47K
R539	1-216-097-00	RES, CHIP	100K (2012)
R540	1-216-695-11	METAL CHIP	68K 0.5% 1/10W
R541	1-208-526-41	RES, CHIP	47K
R542	1-216-097-00	RES, CHIP	100K (2012)
R543	1-216-699-11	METAL CHIP	100K 0.5% 1/10W
R544	1-216-097-00	RES, CHIP	100K (2012)
R545	1-216-097-00	RES, CHIP	100K (2012)
R546	1-216-097-00	RES, CHIP	100K (2012)
R547	1-216-049-11	RES, CHIP	1.0K (2012)
R548	1-216-049-11	RES, CHIP	1.0K (2012)
R549	1-208-526-41	RES, CHIP	47K
R551	1-216-097-00	RES, CHIP	100K (2012)
R552	1-208-462-41	RES, CHIP	10K
R553	1-216-097-00	RES, CHIP	100K (2012)
R555	1-216-295-00	SHORT	0
R556	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R557	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R558	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R559	1-216-049-11	RES, CHIP	1.0K (2012)
R560	1-216-049-11	RES, CHIP	1.0K (2012)
R561	1-216-049-11	RES, CHIP	1.0K (2012)
R562	1-216-079-00	METAL CHIP	18K 5% 1/10W
R563	1-216-295-00	SHORT	0
R564	1-216-295-00	SHORT	0
R565	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R566	1-216-049-11	RES, CHIP	1.0K (2012)
R567	1-216-295-00	SHORT	0
R568	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R569	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R570	1-216-295-00	SHORT	0
R571	1-216-295-00	SHORT	0
R572	1-208-462-41	RES, CHIP	10K
R573	1-208-462-41	RES, CHIP	10K
R574	1-216-085-00	METAL CHIP	33K 5% 1/10W
R599	1-216-097-00	RES, CHIP	100K (2012)
R901	1-216-049-11	RES, CHIP	1.0K (2012)
R916	1-216-025-00	RES, CHIP	100 (2012)
R917	1-216-085-00	METAL CHIP	33K 5% 1/10W
R918	1-208-462-41	RES, CHIP	10K
R919	1-216-041-00	METAL CHIP	470 5% 1/10W
R920	1-208-518-41	RES, CHIP	22K
R921	1-216-025-00	RES, CHIP	100 (2012)

Ref. No.	Part No.	Description	Remark
< VARIABLE RESISTOR >			
RV100	1-238-600-11	RES, ADJ, CARBON	10K
RV200	1-238-600-11	RES, ADJ, CARBON	10K
< SWITCH >			
S501	1-571-478-11	SWITCH, SLIDE (POWER SELECT)	
S502	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT)	
< TUNER >			
TU1	A-3282-029-A	TUNER UNIT (TUX-006/2(E))	
< VIBRATOR >			
X1	1-760-838-21	VIBRATOR, CRYSTAL (7.2MHz)	
X301	1-579-233-11	VIBRATOR, CERAMIC (5MHz)	
X302	1-567-098-41	VIBRATOR, CRYSTAL (32kHz)	

*	1-660-797-11	SENSOR BOARD	

< DIODE >			
D10	8-719-045-75	LED CL-200IR-X-TU	
D11	8-719-045-75	LED CL-200IR-X-TU	
D12	8-719-045-75	LED CL-200IR-X-TU	
< RESISTOR >			
R10	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R11	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R12	1-216-053-00	METAL CHIP	1.5K 5% 1/10W

*	A-3309-872-A	SERVO BOARD, COMPLETE	

< CAPACITOR >			
C1	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V
C2	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C3	1-135-145-11	TANTALUM CHIP	0.47uF 10% 35V
C4	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C5	1-164-182-11	CERAMIC CHIP	0.0033uF 10% 50V
C6	1-163-011-11	CERAMIC CHIP	0.0015uF 10% 50V
C7	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V
C9	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C10	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
C11	1-135-259-11	TANTAL.CHIP	10uF 20% 6.3V
C12	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V
C13	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C14	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V
C15	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C16	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V
C17	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C18	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C19	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V

Ref. No.	Part No.	Description	Remark
C20	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V
C21	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V
C22	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C23	1-135-259-11	TANTAL.CHIP	10uF 20% 6.3V
C24	1-163-259-00	CERAMIC CHIP	220PF 5% 50V
C25	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V
C26	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C27	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C28	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V
C29	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C30	1-126-603-11	ELECT CHIP	4.7uF 20% 35V
C31	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C32	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V
C33	1-124-779-00	ELECT CHIP	10uF 20% 16V
C34	1-109-982-11	CERAMIC CHIP	1uF 10% 10V
C35	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C36	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C37	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C38	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C39	1-126-204-11	ELECT CHIP	47uF 20% 16V
C40	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
< CONNECTOR >			
CN1	1-764-616-12	HOUSING, CONNECTOR (PC BOARD)	30P
CN2	1-565-728-11	CONNECTOR, FPC	17P
CN3	1-770-347-21	CONNECTOR, FPC	6P
* CN4	1-580-056-21	PIN, CONNECTOR	3P
< IC >			
IC1	8-752-372-94	IC CXD2507AQ	
IC2	8-752-074-34	IC CXA1782BQ	
IC3	8-759-354-16	IC BA6796FP-T1	
< JUMPER RESISTOR >			
JR01	1-216-296-00	SHORT	0
JR03	1-216-296-00	SHORT	0
JR4	1-216-296-00	SHORT	0
JR5	1-216-296-00	SHORT	0
JR6	1-216-296-00	SHORT	0
JR7	1-216-296-00	SHORT	0
JR8	1-216-296-00	SHORT	0
JR9	1-216-296-00	SHORT	0
JR10	1-216-296-00	SHORT	0
JR11	1-216-296-00	SHORT	0
JR12	1-216-296-00	SHORT	0
JR13	1-216-296-00	SHORT	0
JR14	1-216-296-00	SHORT	0
JR15	1-216-296-00	SHORT	0
JR16	1-216-296-00	SHORT	0
JR17	1-216-296-00	SHORT	0
JR18	1-216-296-00	SHORT	0
JR19	1-216-296-00	SHORT	0
JR20	1-216-296-00	SHORT	0

Ref. No.	Part No.	Description	Remark
JR21	1-216-296-00	SHORT 0	
JR22	1-216-296-00	SHORT 0	
JR23	1-216-296-00	SHORT 0	
JR24	1-216-296-00	SHORT 0	
JR25	1-216-296-00	SHORT 0	
JR26	1-216-296-00	SHORT 0	
JR27	1-216-296-00	SHORT 0	
JR28	1-216-296-00	SHORT 0	
JR29	1-216-296-00	SHORT 0	
JR30	1-216-296-00	SHORT 0	
JR31	1-216-296-00	SHORT 0	
JR32	1-216-296-00	SHORT 0	
JR33	1-216-296-00	SHORT 0	
JR34	1-216-296-00	SHORT 0	
JR35	1-216-296-00	SHORT 0	
JR36	1-216-296-00	SHORT 0	
JR37	1-216-296-00	SHORT 0	
JR38	1-216-296-00	SHORT 0	
JR40	1-216-296-00	SHORT 0	
JR41	1-216-296-00	SHORT 0	
JR42	1-216-296-00	SHORT 0	
JR43	1-216-296-00	SHORT 0	
JR44	1-216-296-00	SHORT 0	
JR45	1-216-296-00	SHORT 0	
JR46	1-216-296-00	SHORT 0	
JR47	1-216-296-00	SHORT 0	
JR48	1-216-296-00	SHORT 0	
JR49	1-216-296-00	SHORT 0	
JR50	1-216-296-00	SHORT 0	
JR51	1-216-296-00	SHORT 0	
JR52	1-216-296-00	SHORT 0	
JR53	1-216-296-00	SHORT 0	
JR54	1-216-296-00	SHORT 0	
JR55	1-216-296-00	SHORT 0	
JR56	1-216-296-00	SHORT 0	
JR57	1-216-296-00	SHORT 0	
JR58	1-216-296-00	SHORT 0	
JR59	1-216-296-00	SHORT 0	
JR60	1-216-296-00	SHORT 0	
JR61	1-216-296-00	SHORT 0	
JR62	1-216-296-00	SHORT 0	
JR63	1-216-296-00	SHORT 0	
JR64	1-216-296-00	SHORT 0	
JR65	1-216-296-00	SHORT 0	
JR66	1-216-296-00	SHORT 0	
JR67	1-216-296-00	SHORT 0	
JR68	1-216-296-00	SHORT 0	
JR69	1-216-296-00	SHORT 0	
JR70	1-216-296-00	SHORT 0	
JR71	1-216-296-00	SHORT 0	
< COIL >			
L1	1-412-058-11	INDUCTOR CHIP 10uH	

Ref. No.	Part No.	Description	Remark
L2	1-412-058-11	INDUCTOR CHIP 10uH	
L3	1-412-058-11	INDUCTOR CHIP 10uH	
< TRANSISTOR >			
Q1	8-729-033-65	TRANSISTOR 2SJ204-T1B	
Q2	8-729-904-86	TRANSISTOR 2SB1197K-Q	
Q3	8-729-025-41	TRANSISTOR UPA602T-T2	
Q4	8-729-025-41	TRANSISTOR UPA602T-T2	
Q5	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q6	8-729-025-41	TRANSISTOR UPA602T-T2	
Q11	8-729-037-94	PHOTO TRANSISTOR CPT-230S-C-TD-BC	
Q12	8-729-037-94	PHOTO TRANSISTOR CPT-230S-C-TD-BC	
Q13	8-729-037-94	PHOTO TRANSISTOR CPT-230S-C-TD-BC	
< RESISTOR >			
R1	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R2	1-216-097-00	RES, CHIP 100K (2012)	
R3	1-216-121-00	RES, CHIP 1.0M (2012)	
R4	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R5	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R6	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R7	1-216-009-00	METAL CHIP 22 5% 1/10W	
R8	1-216-119-00	METAL CHIP 820K 5% 1/10W	
R9	1-216-119-00	METAL CHIP 820K 5% 1/10W	
R10	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R11	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R14	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R15	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R16	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R17	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R19	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R20	1-216-105-00	RES, CHIP 220K (2012)	
R21	1-216-105-00	RES, CHIP 220K (2012)	
R22	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R23	1-216-121-00	RES, CHIP 1.0M (2012)	
R24	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R27	1-216-295-00	SHORT 0	
R28	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R29	1-216-097-00	RES, CHIP 100K (2012)	
R30	1-216-097-00	RES, CHIP 100K (2012)	
R31	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R32	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R33	1-216-105-00	RES, CHIP 220K (2012)	
R34	1-216-009-00	METAL CHIP 22 5% 1/10W	
R35	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R36	1-216-097-00	RES, CHIP 100K (2012)	
R37	1-216-117-00	METAL CHIP 680K 5% 1/10W	
R38	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R39	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R40	1-216-114-00	RES, CHIP 510K (2012)	
R41	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R42	1-216-107-00	METAL CHIP 270K 5% 1/10W	
R43	1-216-097-00	RES, CHIP 100K (2012)	

Ref. No.	Part No.	Description	Remark
R44	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R45	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R46	1-216-097-00	RES, CHIP 100K (2012)	
R47	1-216-105-00	RES, CHIP 220K (2012)	
R48	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R49	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R50	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R51	1-216-295-00	SHORT 0	
R56	1-216-121-00	RES, CHIP 1.0M (2012)	
R57	1-216-121-00	RES, CHIP 1.0M (2012)	
R58	1-216-121-00	RES, CHIP 1.0M (2012)	
R59	1-216-089-00	RES, CHIP 47K (2012)	
R60	1-216-089-00	RES, CHIP 47K (2012)	
R61	1-208-291-11	RES, CHIP 4.7M (2012)	
R62	1-208-291-11	RES, CHIP 4.7M (2012)	
< VARIABLE RESISTOR >			
RV1	1-238-091-11	RES, ADJ, CERMET 22K	
RV4	1-238-091-11	RES, ADJ, CERMET 22K	

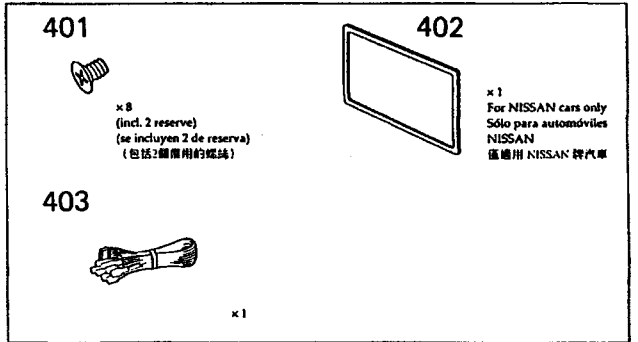
*	1-659-834-11	SUB BOARD *****	
< CONNECTOR >			
CN1	1-770-347-21	CONNECTOR, FPC 6P	

MISCELLANEOUS *****			
2	1-776-207-11	CORD (WITH CONNECTOR) (POWER)	
△ 251	8-848-402-02	PICK-UP, OPTICAL KSS-520A/J2NP	
253	1-659-881-11	PICK-UP FLEXIBLE BOARD	
256	1-659-880-11	MOTOR FLEXIBLE BOARD	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	X-3371-664-2	MOTOR ASSY (SPINDLE)	
M902	A-3291-674-A	MOTOR ASSY, SLED	
M903	A-3291-676-A	MOTOR SUB ASSY, LOADING	
M904	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
M905	A-3291-664-A	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)	
S901	1-692-885-11	SWITCH, ROTARY SLIDE (TAPE OPERATION)	

Ref. No.	Part No.	Description	Remark
ACCESSORIES & PACKING MATERIALS *****			
	3-859-832-11	MANUAL, INSTRUCTION (ENGLISH,SPANISH, CHINESE)	
	3-859-833-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,CHINESE)	
	X-3374-605-2	COVER ASSY, FRONT	

HARDWARE LIST *****			
#1	7-685-791-09	SCREW +PTT 2.6X5 (S)	
#2	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#3	7-685-105-19	TPG +P 2X8, TYPE 2, NON-SLIT	
#4	7-624-104-04	STOP RING 2.0, TYPE -E	
#5	7-627-553-17	SCREW, PRECISION +P 2X2 TYPE 3	
#6	7-628-253-00	SCREW +PS 2X4	
#7	7-627-553-37	SCREW, PRECISION +P 2X3 TYPE 3	
#8	7-627-850-28	SCREW, PRECISION +P 1.4X3	
#9	7-627-000-00	SCREW, PRECISION +P 1.7X2.2 TYPE 3	
#10	7-685-796-09	SCREW +PTT 2.6X14 (S)	
#11	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#12	7-685-135-19	SCREW +P 2.6X10 TYPE2 NON-SLIT	

PARTS FOR INSTALLATION AND CONNECTIONS *****			
401	X-3372-585-1	SCREW ASSY	
402	3-936-590-01	FRAME (N), ORNAMENT	
403	1-776-207-11	CORD (WITH CONNECTOR) (POWER)	



The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.